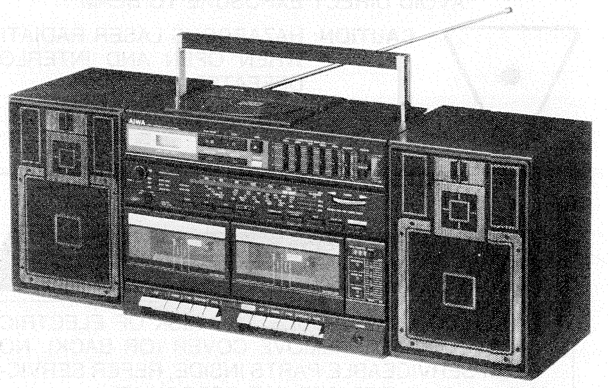
AIWA®

S/M Code No. 87-051
DATE OF ISSUE 9/1987-F

SERVICE MANUAL

MODEL NO. CA-DW95



- ■ COMPACT DISC CARRY COMPONENT SYSTEM
- ■ TYPE H. U. E. K. Z

SPECIFICATIONS

Type	Stereo multiband radio cassette recorder
Power Source	Batteries, DC 12V (R20P × 8) CA-W95 H AC110–120V/220–240V Switchable 50/60Hz CA-DW95 K AC120V/240V Switchable 50Hz CA-DW95 E, Z AC-110-120V/220–240V Switchable 50Hz CA-DW95 U AC120V/220–240V Switchable 50/60Hz
Output	4W FTC Rule 3.6 watts per channel, Min. RMS at 3.2 ohms, from 150 Hz to 15 kHz, with no more than 10% total Harmonic Distortion.
Power Consumption	26W (CA-DW95H) 22W (CA-DW95E, K, Z) 22W (CA-DW95U)
Speaker	Woofer 120mm round type × 2 Tweeter 20mm piezo × 2

TAPE RECORDER SECTION

Tape Speed	4.8cm/sec (1/7/8 IPS)
Recording System	AC Bias
Erasing System	AC Bias
Recording Time	90 minutes (C-90 Cassette both direction)

RADIO SECTION

Frequency Range	CA-DW95 H FM 87.5–108MHz MW 530–1605kHz SW1 2.3–7MHz SW2 7–22MHz FM87.5–108MHz MW 530–1605kHz LW 150–285kHz SW 9–18MHz CA-DW95 U FM 88–108MHz AM 530–1605kHz
Antenna	CA-DW95 H Whip antenna for FM and SW2 Ferrite bar antenna for MW and SW Whip antenna for FM and LW. Ferrite bar antenna for MW and SW. CA-DW95 U Whip antenna for FM Ferrite bar antenna for AM

CD SECTION

S/N Ratio	75dB
Channel Separation	56dB
Frequency Response	20Hz–20kHz
Hamonic Distortion	0.15%
Dimension (W×H×D)	655×244×199mm
Weight	6.14kg

- Design and specifications are subject to change without notice.

AIWA Co., Ltd.

Tokyo Japan

Printed in Japan

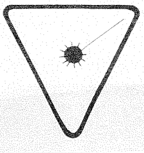
PROTECTION OF EYES FROM LASER BEAM DURING SERVING

LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

CAUTION: USE OF CONTROLS, ADJUSTMENTS OR PERFORMANCE, OF PROCEDURES OTHER THAN SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DANGER: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED.
AVOID DIRECT EXPOSURE TO BEAM.



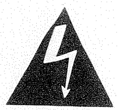
CAUTION: HAZARDOUS LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED.

CAUTION

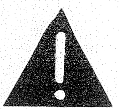
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUAUFIED SERVICE PERSONNEL.

Explanation of Graphical Symbols:



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literation accompanying the appliance.

1. Laser Diode Properties

- Material: GaAlAs
- Wavelength: 780mm
- Emission Duration: continus
- Laser Output: max. 0.28mW*
  * This output is the value measured at a distance of about 1.6mm from the objective lens surface on the Optical Pick-up Block.
- Classification: Class IIIb

2. During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit. If there is a breakdown in the APC circuit (including laser diode), replace the entire Optical Pick-up Block (including APC board).

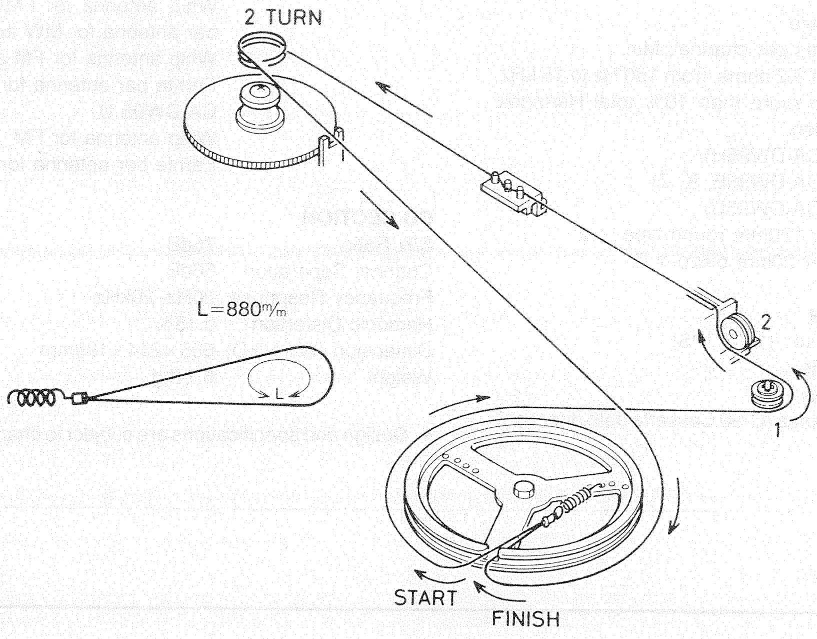
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1
LASER PRODUCT

"Varoitus! Suojakoteloa ei saa avata. Laite sisältää laserdiodin, joka lahettää näkymätöntä silmille vaarallista lasersäteilyä."

"Denna apparat innehåller laserkomponent som avger laserstrålning som överskrider gränsen för laserklass 1."

DIAL CORD STRINGING DIAGRAM



DISASSEMBLY INSTRUCTIONS

FRONT PANEL REMOVAL Fig. 1, 2, 3

1. Remove 5 screws A from the cabinet.
2. Pull front panel out carefully.
3. Remove connectors B, C, D, E and F.
4. Pull front panel away.

CASSETTE DECK 1 REMOVAL Fig. 1, 3

1. Follow the procedure of FRONT PANEL REMOVAL.
2. Remove 4 screws G (H for TAPE 2) from the cassette deck.
3. Remove ground lug I.
4. Push STOP/EJECT key and open the cassette door.
5. Pull cassette deck out.

CASSETTE DECK 2 REMOVAL Fig. 1, 3, 4

1. Follow the procedure of CASSETTE DECK I REMOVAL 1 to 4.
2. Remove recording rod J and tape counter belt.

MAIN PCB WITH POINTER GUIDE REMOVAL Fig. 1, 4

1. Follow the procedure of FRONT PANEL REMOVAL.
2. Remove 3 screws L from the pointer guide.
3. Remove 3 connectors N, O and P from the main PCB.
4. Pull main PCB out carefully.

CD DECK AND CD MAIN PCB REMOVAL Fig. 1

1. Follow the procedure of FRONT PANEL REMOVAL.
2. Remove 1 screw Q from the cabinet.
3. Pull CD deck and CD main PCB.

SPEAKER FRONT PANEL REMOVAL Fig. 5

1. Remove 4 screws R from the speaker cabinet.
2. Remove speaker leads from the speaker. (Woofer and Tweeter)

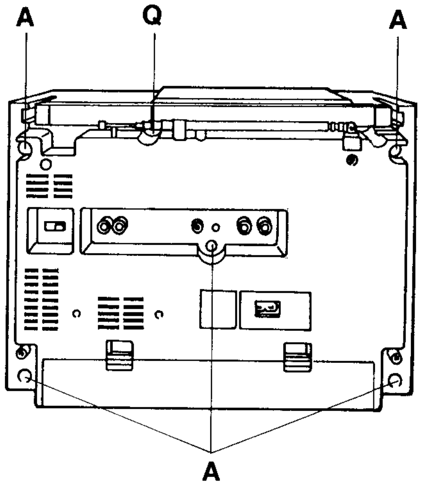


Fig. 1

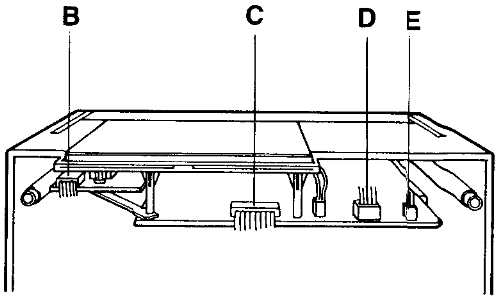


Fig. 2

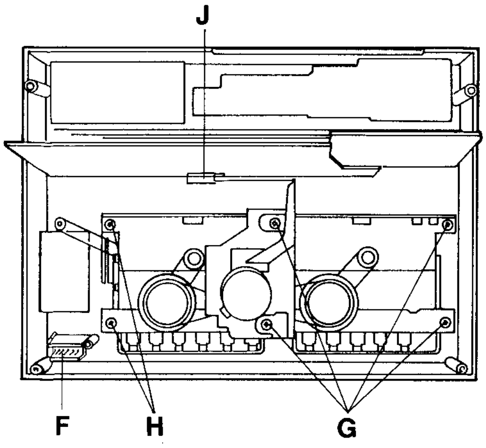


Fig. 3

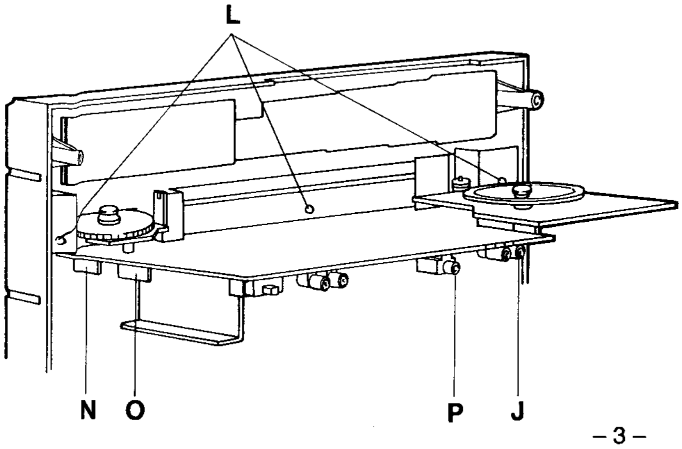


Fig. 4

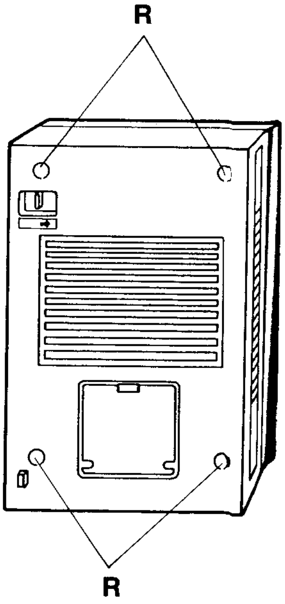
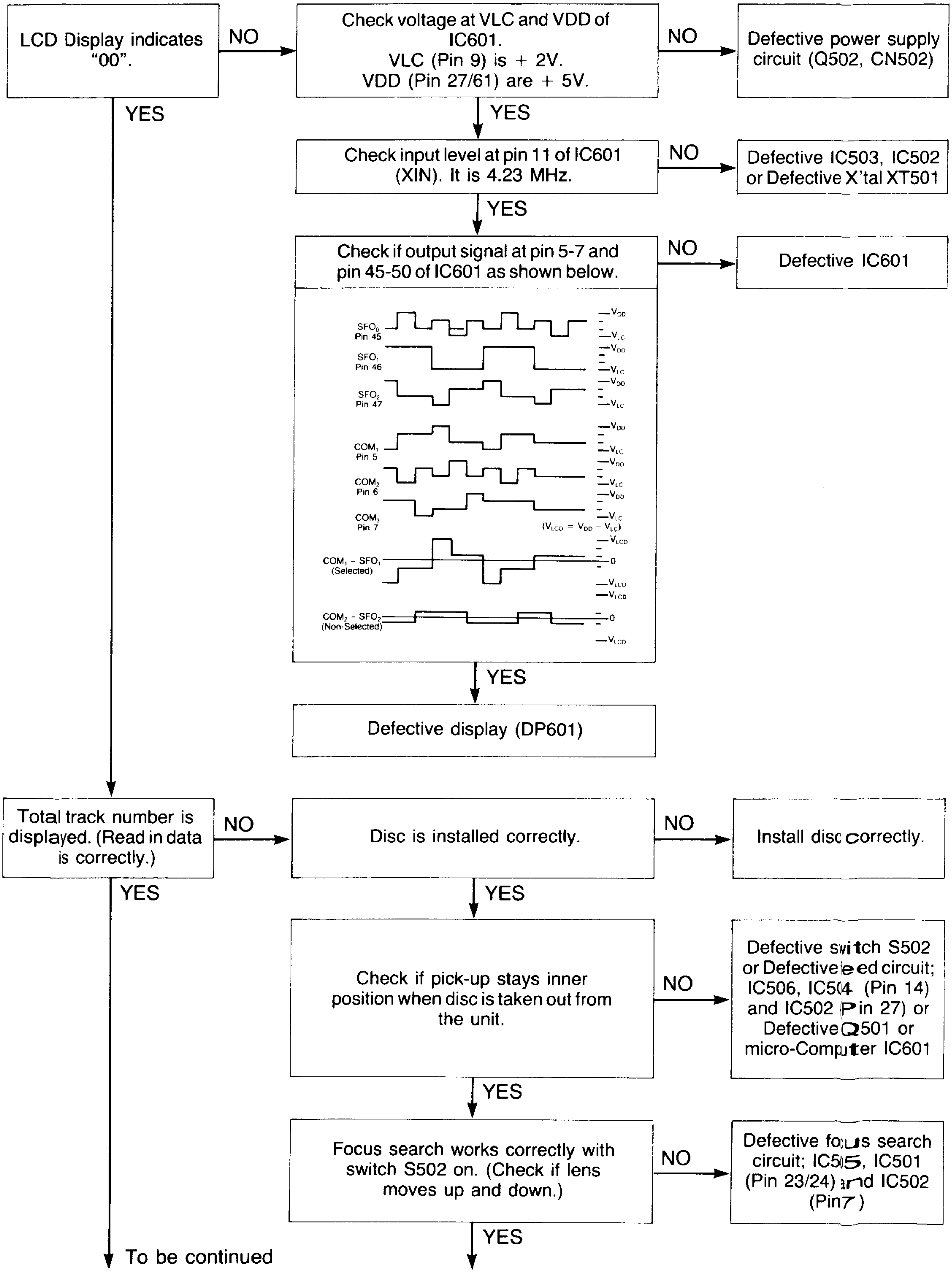
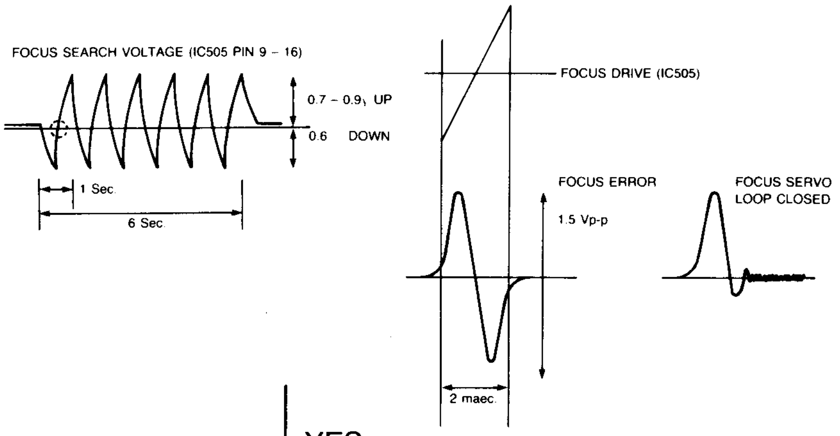


Fig. 5

TROUBLESHOOTING GUIDE (CD SECTION)


LCD Display indicates "00".
NO
Check voltage at VLC and VDD of IC601. VLC (Pin 9) is + 2V. VDD (Pin 27/61) are + 5V.
NO
Defective power supply circuit (Q502, CN502)
YES
YES
Check input level at pin 11 of IC601 (XIN). It is 4.23 MHz.
NO
Defective IC503, IC502 or Defective X'tal XT501
YES
Check if output signal at pin 5-7 and pin 45-50 of IC601 as shown below.
NO
Defective IC601
SFO0 Pin 45
SFO1 Pin 46
SFO2 Pin 47
COM1 Pin 5
COM2 Pin 6
COM3 Pin 7
COM1 - SFO1 (Selected)
COM2 - SFO2 (Non-Selected)
VDD
VLC
(VLCD = VDD - VLC)
VLCD
0
VLCD
YES
Defective display (DP601)
Total track number is displayed. (Read in data is correctly.)
NO
Disc is installed correctly.
NO
Install disc correctly.
YES
YES
Check if pick-up stays inner position when disc is taken out from the unit.
NO
Defective switch S502 or Defective feed circuit; IC506, IC504 (Pin 14) and IC502 (Pin 27) or Defective Q501 or micro-Computer IC601
YES
Focus search works correctly with switch S502 on. (Check if lens moves up and down.)
NO
Defective focus search circuit; IC505, IC501 (Pin 23/24) and IC502 (Pin7)
YES
To be continued

YES



YES

Check laser diode is powered on with switch S501/S502 when no disc is set. It is 0.25 mW. (Refer to ALIGNMENT of CD SECTION)

NO → Defective switch S503 or Defective A.P.C. circuit; IC513, Q505 and IC502 (Pin 3) or Defective Pick-up (P501)

YES

Check focus servo is closed with disc installed.

NO → Defective focus servo circuit; Misalignment of VR503/504, IC501/504/505 Defective Pick-up (PD)

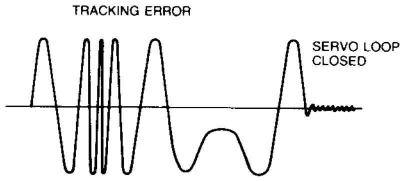
YES

Disc motor rotates correctly.

NO → Defective disc motor (M502) Defective disc servo circuit; IC508, IC504 (Pin 8/9/10), IC502 (Pin 30), IC501

YES

Tracking servo is closed.



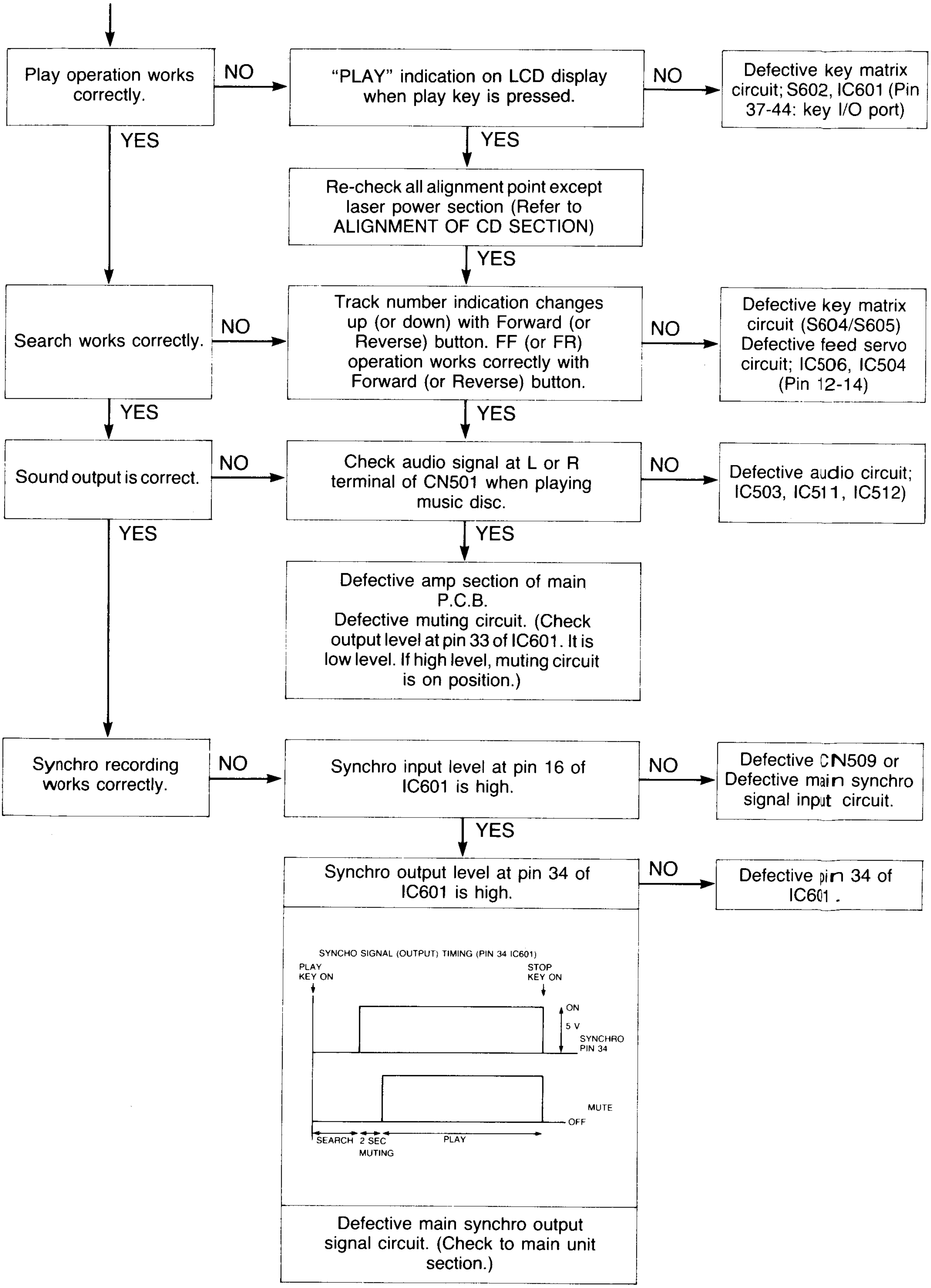
NO → Defective Tracking servo circuit; IC501, IC502 (Pin 25/26), IC504 (Pin 1-7) IC507, Misalignment of VR501 Defective Pickup (E/F) (output)

YES

Read in data.

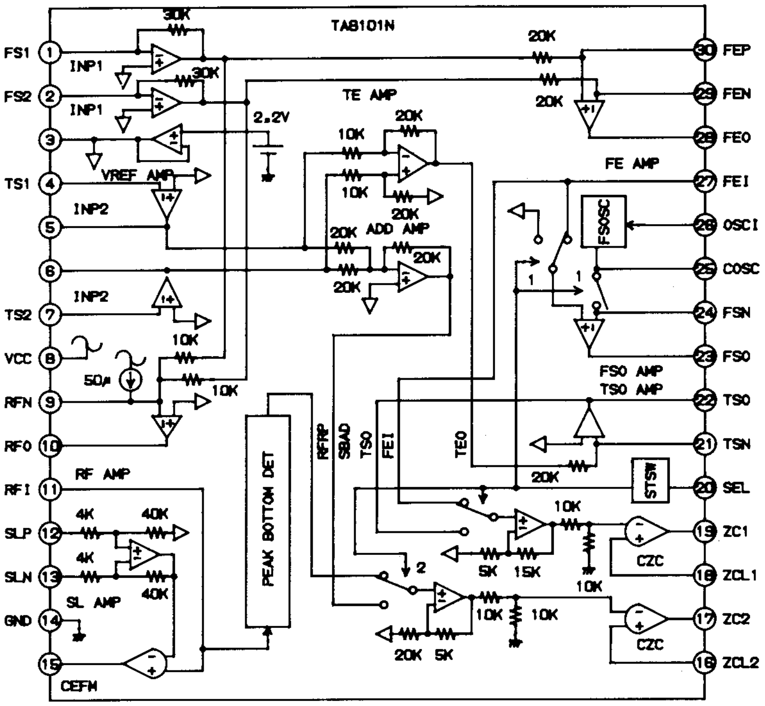
NO → Defective HF amp circuit; IC501, IC502 (Pin 6/28/29) or Misalignment of VR502 or Defective disc

To be continued

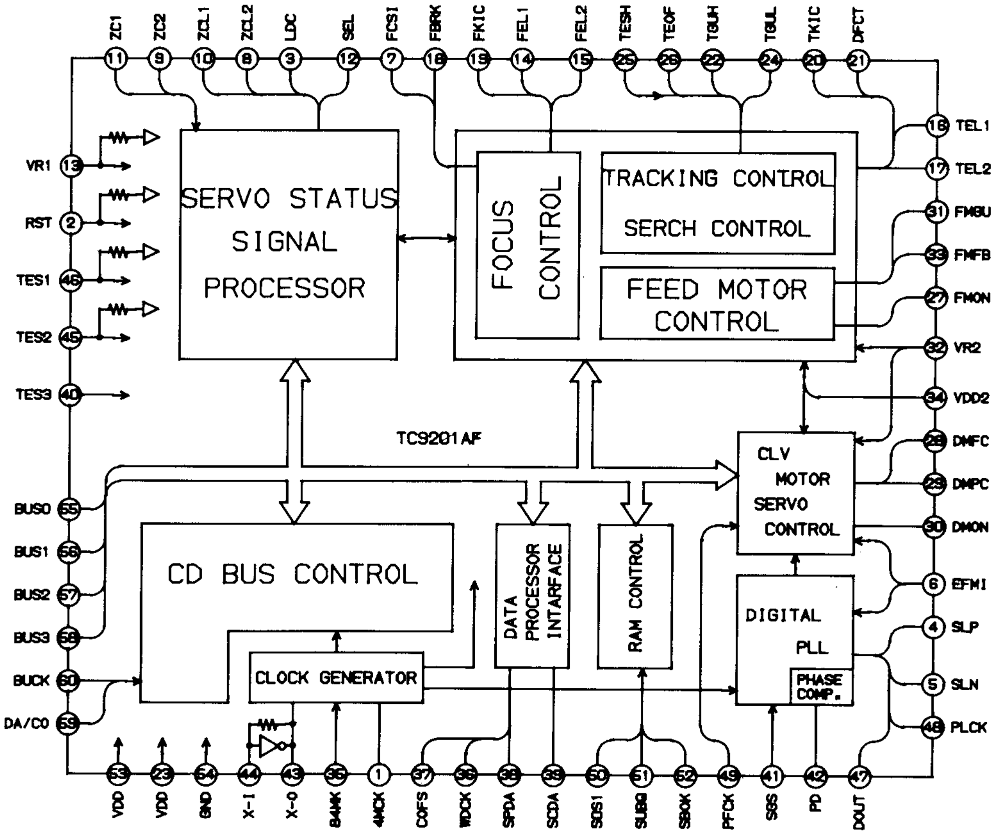

Play operation works correctly.
NO
YES
"PLAY" indication on LCD display when play key is pressed.
NO
YES
Defective key matrix circuit; S602, IC601 (Pin 37-44: key I/O port)
Re-check all alignment point except laser power section (Refer to ALIGNMENT OF CD SECTION)
YES
Search works correctly.
NO
YES
Track number indication changes up (or down) with Forward (or Reverse) button. FF (or FR) operation works correctly with Forward (or Reverse) button.
NO
YES
Defective key matrix circuit (S604/S605) Defective feed servo circuit; IC506, IC504 (Pin 12-14)
Sound output is correct.
NO
YES
Check audio signal at L or R terminal of CN501 when playing music disc.
NO
YES
Defective audio circuit; IC503, IC511, IC512)
Defective amp section of main P.C.B.
Defective muting circuit. (Check output level at pin 33 of IC601. It is low level. If high level, muting circuit is on position.)
Synchro recording works correctly.
NO
Synchro input level at pin 16 of IC601 is high.
NO
YES
Defective CN509 or Defective main synchro signal input circuit.
Synchro output level at pin 34 of IC601 is high.
NO
Defective pin 34 of IC601.
SYNCHO SIGNAL (OUTPUT) TIMING (PIN 34 IC601)
PLAY KEY ON
STOP KEY ON
ON
5 V
SYNCHRO PIN 34
MUTE
OFF
SEARCH
2 SEC MUTING
PLAY
Defective main synchro output signal circuit. (Check to main unit section.)

IC INTERNAL BLOCK DIAGRAM (CD SECTION)

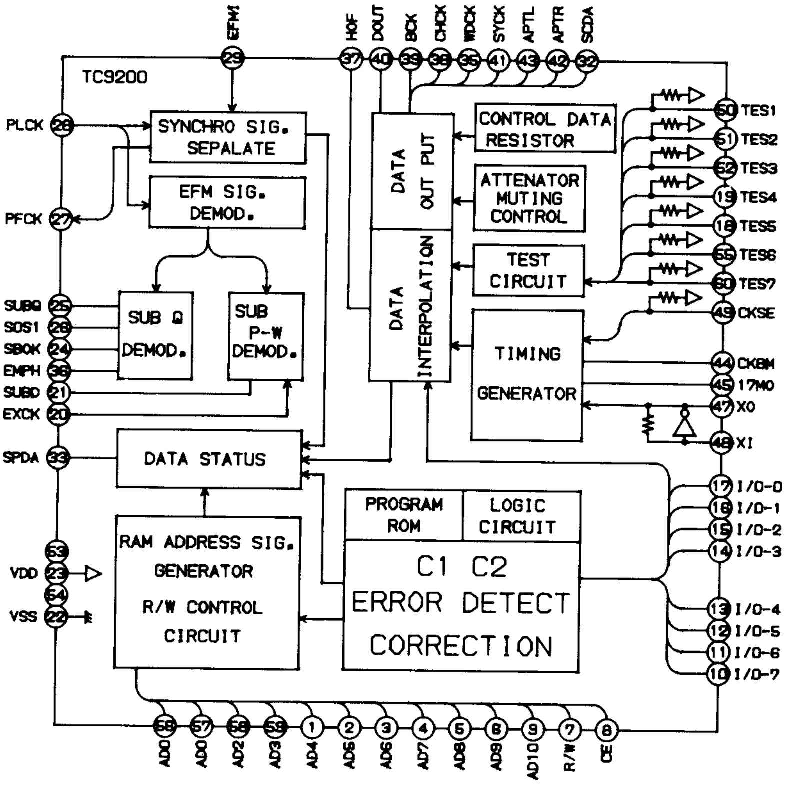
TA810N(IC501)


TA8101N
FS1 1
FS2 2
3
TS1 4
5
6
TS2 7
VCC 8
RFN 9
RFO 10
RFI 11
SLP 12
SLN 13
GND 14
15
30K
30K
INP1
INP1
2.2V
TE AMP
20K
10K
10K
20K
VREF AMP
INP2
ADD AMP
20K
20K
20K
20K
INP2
10K
50µ
10K
RF AMP
4K
40K
4K
40K
SL AMP
CEFM
PEAK BOTTOM DET
RFRP
SBAD
TSO
FEI
TEO
20K
20K
FE AMP
FSOSC
1
1
FSO AMP
TSO AMP
STSW
20K
10K
2
5K
15K
10K
CZC
10K
10K
CZC
20K
5K
30 FEP
29 FEN
28 FEO
27 FEI
26 OSCI
25 COSC
24 FSN
23 FSO
22 TSO
21 TSN
20 SEL
19 ZC1
18 ZCL1
17 ZC2
16 ZCL2

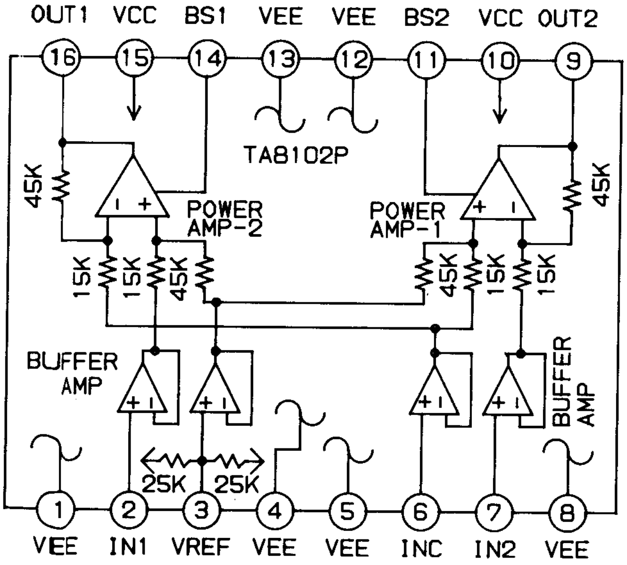
TC9201AF (IC502)


ZC1 11
ZC2 9
ZCL1 10
ZCL2 8
LDC 3
SEL 12
FCSI 7
FBRK 18
FKIC 19
FEL1 14
FEL2 15
TESH 25
TEOF 26
TGUH 22
TGUL 24
TKIC 20
DFCT 21
VR1 13
RST 2
TES1 46
TES2 45
TES3 40
BUS0 55
BUS1 56
BUS2 57
BUS3 58
BUCK 60
DA/CO 59
SERVO STATUS SIGNAL PROCESSOR
FOCUS CONTROL
TRACKING CONTROL
SERCH CONTROL
FEED MOTOR CONTROL
TC9201AF
CLV MOTOR SERVO CONTROL
CD BUS CONTROL
DATA PROCESSOR INTARFACE
RAM CONTROL
CLOCK GENERATOR
DIGITAL PLL
PHASE COMP.
16 TEL1
17 TEL2
31 FMGU
33 FMFB
27 FMON
32 VR2
34 VDD2
28 DMFC
29 DMPC
30 DMON
6 EFMI
4 SLP
5 SLN
48 PLCK
53 VDD
23 VDD
54 GND
44 X-I
43 X-O
35 84MK
1 4MCK
37 COFS
36 WDCK
38 SPDA
39 SCDA
50 SDS1
51 SUBQ
52 SBOK
49 PFCK
41 SBS
42 PD
47 DOUT

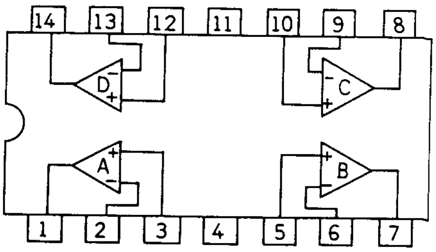
TC9200AF (IC503)


TC9200
EFMI 29
HOF 37
DOUT 40
BCK 39
CHCK 38
WDCK 35
SYCK 41
APTL 43
APTR 42
SCDA 32
PLCK 28
PFCK 27
SUBQ 25
SOS1 26
SBOK 24
EMPH 36
SUBD 21
EXCK 20
SPDA 33
53
VDD 23
54
VSS 22
SYNCHRO SIG. SEPALATE
EFM SIG. DEMOD.
SUB Q DEMOD.
SUB P-W DEMOD.
DATA STATUS
RAM ADDRESS SIG. GENERATOR
R/W CONTROL CIRCUIT
DATA OUT PUT
DATA INTERPOLATION
CONTROL DATA RESISTOR
ATTENATOR MUTING CONTROL
TEST CIRCUIT
TIMING GENERATOR
PROGRAM ROM
LOGIC CIRCUIT
C1 C2 ERROR DETECT CORRECTION
50 TES1
51 TES2
52 TES3
19 TES4
18 TES5
55 TES6
60 TES7
49 CKSE
44 CKBM
45 17MO
47 XO
48 XI
17 I/O-0
16 I/O-1
15 I/O-2
14 I/O-3
13 I/O-4
12 I/O-5
11 I/O-6
10 I/O-7
56 AD0
57 AD0
58 AD2
59 AD3
1 AD4
2 AD5
3 AD6
4 AD7
5 AD8
6 AD9
9 AD10
7 R/W
8 CE

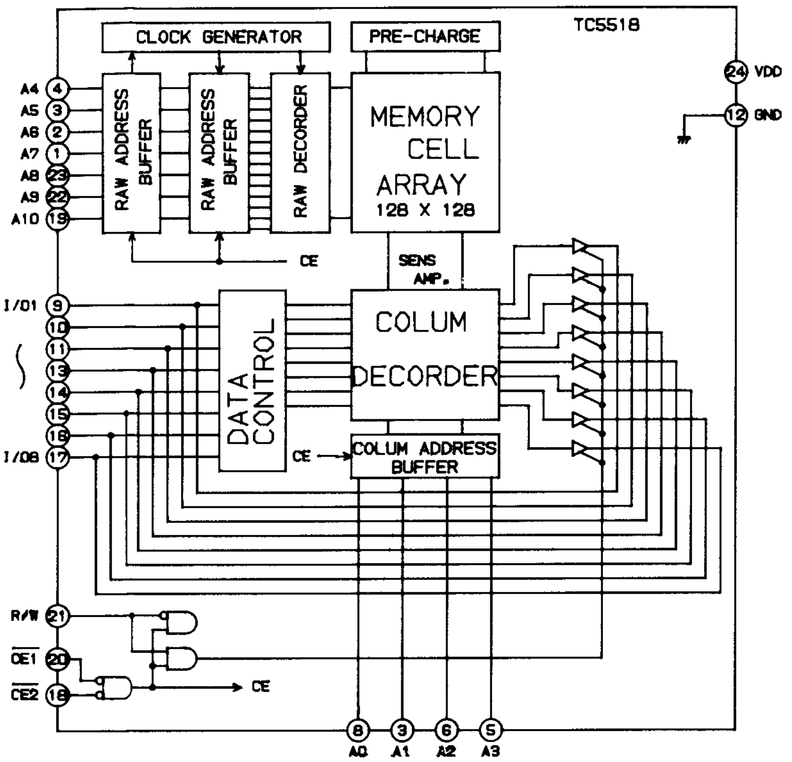
TA8102P (IC505 ~ 508)


OUT1
VCC
BS1
VEE
VEE
BS2
VCC
OUT2
16
15
14
13
12
11
10
9
TA8102P
45K
POWER AMP-2
POWER AMP-1
45K
15K
15K
45K
45K
15K
15K
BUFFER AMP
BUFFER AMP
25K
25K
1
2
3
4
5
6
7
8
VEE
IN1
VREF
VEE
VEE
INC
IN2
VEE

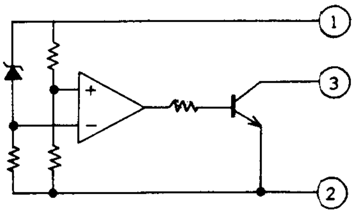
NJM2902N (IC504)


14
13
12
11
10
9
8
D
C
A
B
1
2
3
4
5
6
7

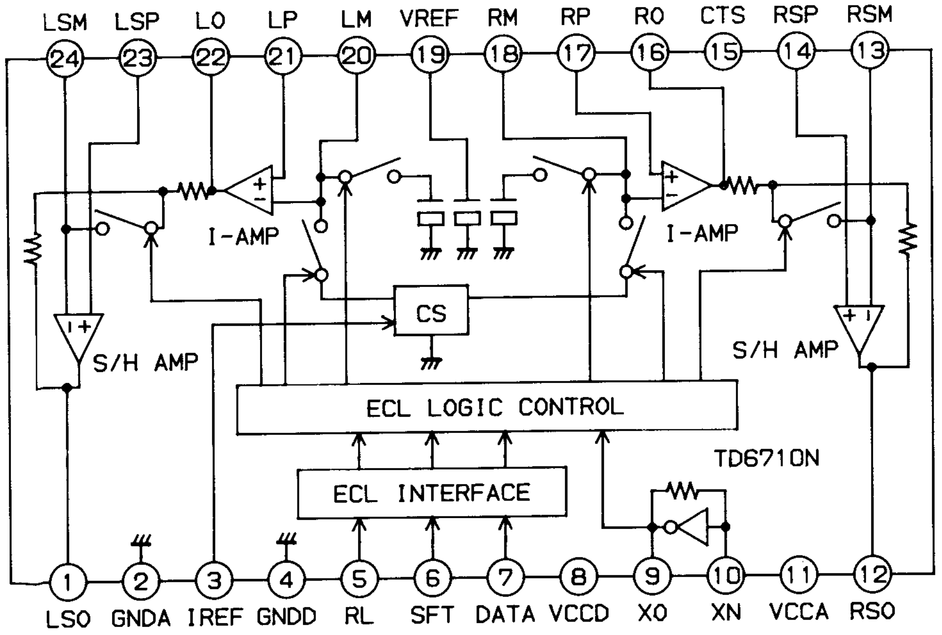
CXK5816M-15L


TC5518
CLOCK GENERATOR
PRE-CHARGE
RAW ADDRESS BUFFER
RAW ADDRESS BUFFER
RAW DECORDER
MEMORY CELL ARRAY
128 X 128
24 VDD
12 GND
A4 4
A5 3
A6 2
A7 1
A8 23
A9 22
A10 19
CE
SENS AMP.
I/01 9
10
11
13
14
15
16
I/08 17
DATA CONTROL
COLUM DECORDER
CE
COLUM ADDRESS BUFFER
R/W 21
CE1 20
CE2 18
CE
8 A0
3 A1
6 A2
5 A3

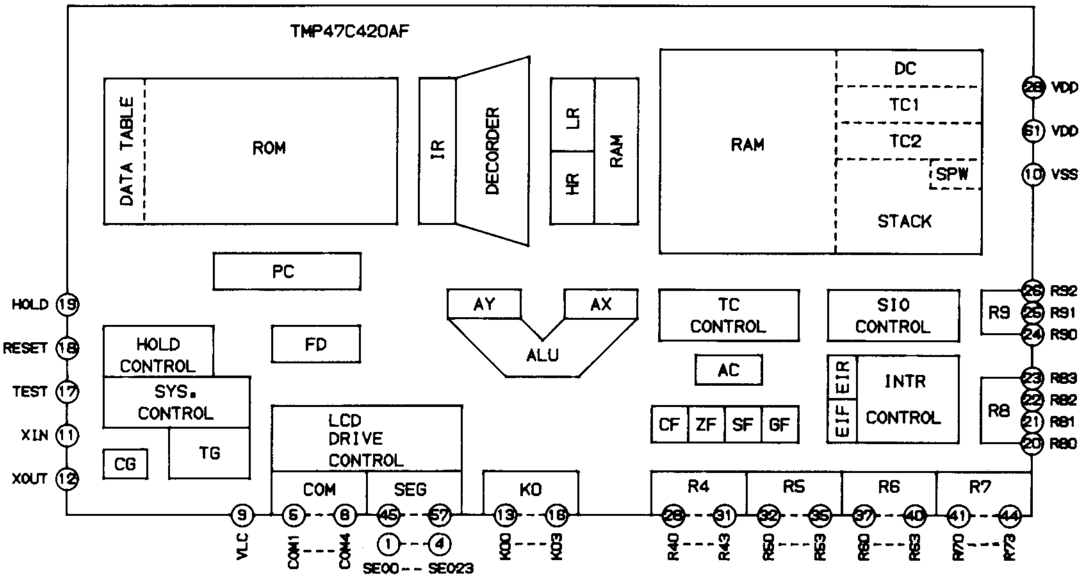
PST520C (IC510)



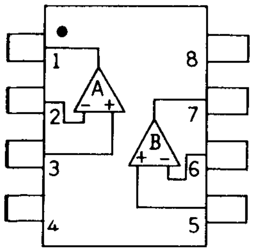
TD6710 (IC511)


LSM 24
LSP 23
LO 22
LP 21
LM 20
VREF 19
RM 18
RP 17
RO 16
CTS 15
RSP 14
RSM 13
I-AMP
I-AMP
CS
S/H AMP
S/H AMP
ECL LOGIC CONTROL
TD6710N
ECL INTERFACE
1 LSO
2 GNDA
3 IREF
4 GNDD
5 RL
6 SFT
7 DATA
8 VCCD
9 XO
10 XN
11 VCCA
12 RSO

TCP47C 420AF8271 (IC601)

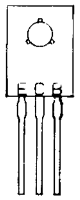

TMP47C420AF
DATA TABLE
ROM
IR
DECORDER
LR
HR
RAM
RAM
DC
TC1
TC2
SPW
STACK
VDD
VDD
VSS
PC
HOLD
RESET
TEST
XIN
XOUT
HOLD CONTROL
SYS. CONTROL
FD
CG
TG
AY
AX
ALU
TC CONTROL
AC
SIO CONTROL
CF
ZF
SF
GF
EIR
EIF
INTR CONTROL
R9
R92
R91
R90
R8
R83
R82
R81
R80
LCD DRIVE CONTROL
COM
SEG
KO
R4
R5
R6
R7
VLC
COM1
COM4
SE00 -- SE023
K00
K03
R40
R43
R50
R53
R60
R63
R70
R73

NJM2904D (IC512, 513)


1
2
3
4
5
6
7
8
A
B
−
+
+
−

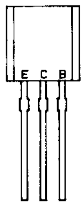
TRANSISTOR LEADS IDENTIFICATION

Q501



2SD882

Q502~505, 508, 508

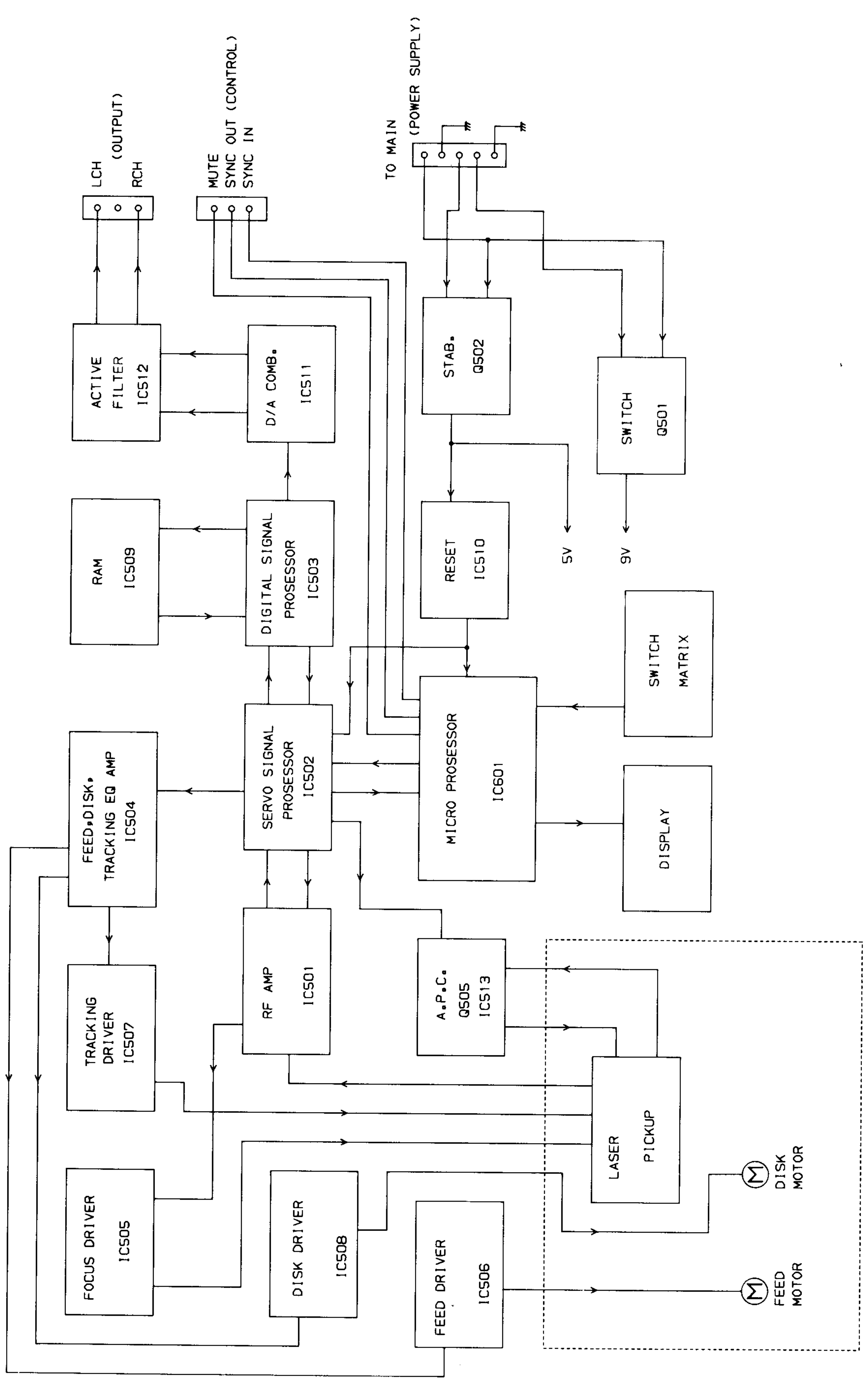


2SC 1383
2SC 2120
2SA 683R
2SC 1815
2SA 1015

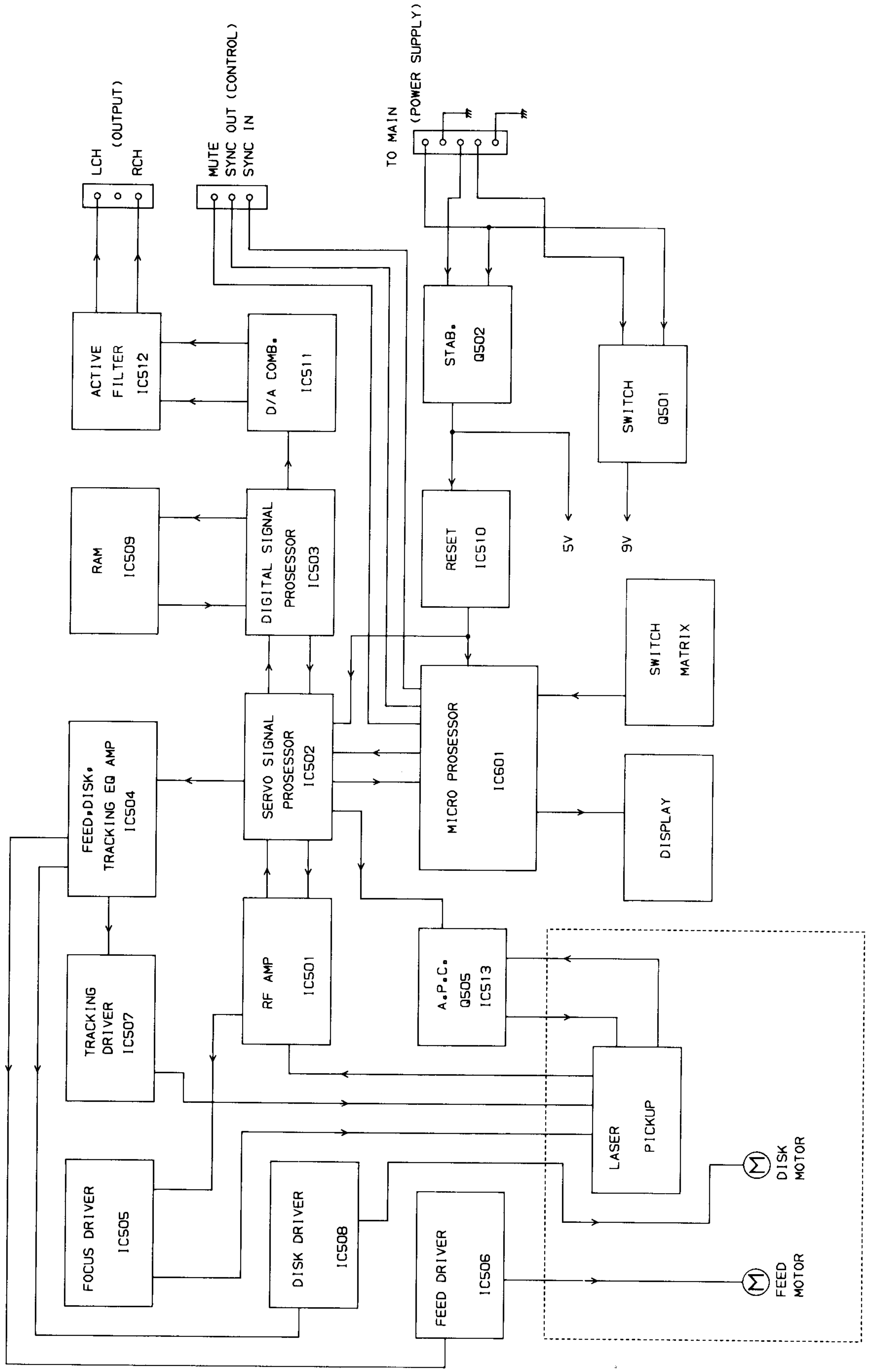
TERMINAL DESCRIPTION (IC601, TMP47C 420AF)

Pin No.	I/O	Pin Designation	Function
1~4	—	NC	
5~7	OUT	COM 1~3	LCD Display Common, Driver output
8	—	NC	
9	IN	VLC	LCD Display, Driver voltage (VCC−VLC=VLCD)
10	—	VSS	Ground pin terminal
11	IN	XIN	Clock input terminal (from TC9201AF 4.23MHz)
12	—	NC	
13	IN	K00	Limit switch signal input for Pickup Pickup moves toward the lead-in area when the limit switch signal is "high". Pickup stops its moving when the limit switch signal is "low" at the moment pickup enters into the lead-in area.
14	IN	K01	Open/close signal input. (L: Close, pickup moves to lead-in area)
15	—	NC	
16	IN	K03	Synchro signal input. (H: Synchro mode)
17	—	NC	
18	IN	RST	Rest, System initializes when power is on.
19~20	—	NC	
21	IN	NC	
22~25	—	NC	
26	I/O	DA/CO	Control I/O for Command & Data (output of "L" signal when 1st word of the command be transmitted and the "L" signal be introduced from TC9201AF as ACK signal when the command/data be accepted correctly.
27	—	VDD	Power supply input pin (+5V)
28~31	I/O	BUS0~BUS3	I/O BUS line for Command & Data (output for Command & data at 1st step of BUCK to TC9201AF)
32	OUT	BUCX	Clock out terminal for Command & Data (be "high" position when no transmission of Command & Data to TC9201AF.)
33	OUT	MUTE	Muting output pin (H: Muting mode, L: during play)
34	OUT	SYNCHRO	Synchro signal output pin (output of synchro start signal for tape recording at Pin 16 with "H" input in the play mode.)
35~36	—	NC	
37~40	OUT	KEY OUT	Control key output pin
41~44	IN	KEY IN	Control key input pin
45~50	OUT	SEG0~SEG5	LCD Display segment driver output pin
51~60	—	NC	
61	—	VDD	Power supply input (+5V)
62~67	—	NC	

BLOCK DIAGRAM (CD SECTION)


LCH
RCH
(OUTPUT)
MUTE
SYNC OUT (CONTROL)
SYNC IN
TO MAIN
(POWER SUPPLY)
ACTIVE FILTER IC512
D/A COMB. IC511
STAB. Q502
SWITCH Q501
RAM IC509
DIGITAL SIGNAL PROCESSOR IC503
RESET IC510
5V
9V
SWITCH MATRIX
FEED.DISK. TRACKING EQ AMP IC504
SERVO SIGNAL PROSESSOR IC502
MICRO PROCESSOR IC601
DISPLAY
TRACKING DRIVER IC507
RF AMP IC501
A.P.C. Q505 IC513
LASER PICKUP
DISK MOTOR
FOCUS DRIVER IC505
DISK DRIVER IC508
FEED DRIVER IC506
FEED MOTOR

BLOCK DIAGRAM (CD SECTION)


LCH
(OUTPUT)
RCH
MUTE
SYNC OUT (CONTROL)
SYNC IN
TO MAIN
(POWER SUPPLY)
ACTIVE FILTER IC512
D/A COMB. IC511
STAB. Q502
SWITCH Q501
RAM IC509
DIGITAL SIGNAL PROSESSOR IC503
RESET IC510
5V
9V
SWITCH MATRIX
FEED·DISK· TRACKING EQ AMP IC504
SERVO SIGNAL PROSESSOR IC502
MICRO PROCESSOR IC601
DISPLAY
TRACKING DRIVER IC507
RF AMP IC501
A.P.C. Q505 IC513
LASER PICKUP
DISK MOTOR
FOCUS DRIVER IC505
DISK DRIVER IC508
FEED DRIVER IC506
FEED MOTOR

CD VOLTAGE CHART

VOLTAGE (IC) unit in V

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC501	2.17	2.17	2.17	2.17	2.17	2.17	2.17	4.94	2.17	1.09	2.16	2.17	2.17	0	0.57	0.42	2.81	1.16	2.50	4.87
IC502	2.04	4.9	0.1	—	—	1.45	2.5	0.4	2.8	1.13	2.3	4.87	2.17	2.2	2.2	2.17	2.17	—	2.5	1.8
IC503	1.01	1.02	1.01	2.58	2.74	2.67	4.68	3.92	2.71	1.95	2.22	2.21	2.64	2.61	2.67	2.17	2.51	—	—	—
IC601	—	—	—	—	3.54	3.55	3.55	—	2.18	0	2.03	—	4.94	0	—	4.94	—	4.92	—	—
Pin No.	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
IC501	2.17	2.16	2.17	2.17	2.17	2.52	2.20	2.22	2.17	2.16										
IC502	2.17	2.17	4.95	2.17	2.16	2.17	2.17	2.17	2.11	2.17	2.17	2.17	2.13	4.26	0	2.48	1.66	3.6	4.13	0
IC503	—	0	4.97	0	2.02	0.03	2.27	2.46	2.41	—	—	4.13	3.70	1.66	2.48	4.92	4.96	2.49	2.46	2.44
IC601	4.94	—	—	—	—	0.32	4.95	4.91	0.368	4.89	0.33	4.83	4.16	0.042	0.48	—	0.22	0.26	0.22	0.40
Pin No.	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
IC501																				
IC502	0	—	—	2.44	4.15	4.94	2.41	2.45	2.27	0.04	1.99	0	4.96	0	4.92	0.36	4.91	0.32	0.31	4.85
IC503	--	—	—	—	2.44	—	2.18	2.32	—	—	—	—	4.97	0	—	2.57	2.96	3.16	1.05	—
IC601	4.95	4.96	4.96	4.95	3.58	3.58	3.59	3.58	3.59											

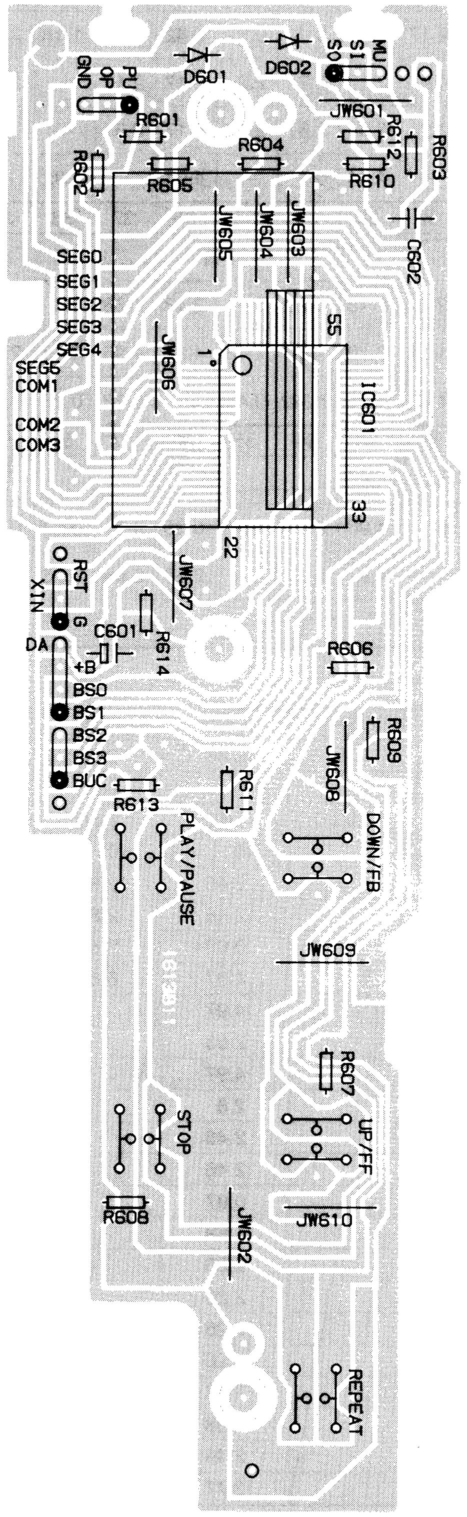
VOLTAGE (IC) unit in V

	IC504	IC505	IC506	IC507	IC508	IC509	IC510	IC511	IC512	IC513
1	2.18	0	0	0	0	2.57	4.95	2.86	2.86	0
2	2.19	2.15	2.22	2.22	2.18	1.01	0	0	2.86	3.12
3	2.18	4.35	4.37	4.37	4.35	1.02	4.93	1.63	2.86	0.23
4	4.95	0	0	0	0	1.02		0	0	4.18
5	2.17	0	0	0	0	1.02		2.48	2.83	4.93
6	2.17	2.17	2.17	2.17	2.17	2.99		2.46	2.82	3.66
7	2.19	2.15	2.22	2.22	2.18	2.81		0.024	2.82	0.12
8	2.17	0	0	0	0	2.52		4.97	6.86	2.03
9	2.17	4.39	4.22	4.22	4.34	2.50		4.97		
10	2.16	8.67	8.67	8.67	8.68	2.13		2.05		
11	0	8.52	8.52	8.53	8.53	2.74		4.97		
12	2.17	0	0	0	0	0		2.8		
13	2.17	0	0	0	0	2.64		2.46		
14	2.22	8.52	8.52	8.51	8.53	2.71		2.46		
15		8.67	8.67	8.67	8.68	2.30		0.97		
16		4.31	4.31	4.52	4.40	2.28		1.89		
17						1.95		2.26		
18						0		2.26		
19						2.71		2.26		
20						3.91		2.26		
21						4.67		2.26		
22						2.67		1.88		
23						0.86		2.46		
24						4.95		2.47		

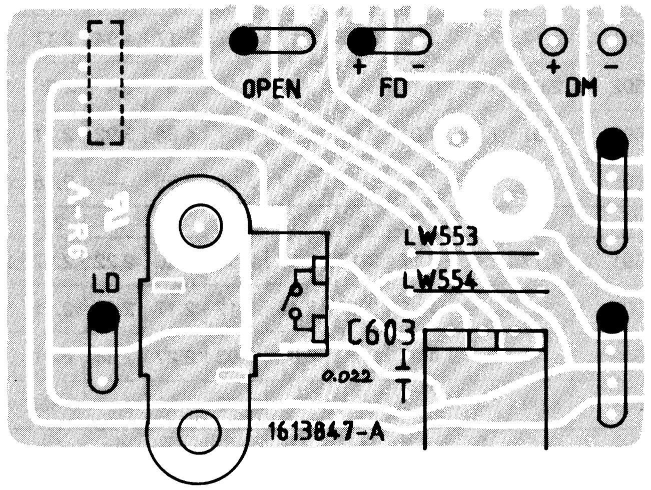
VOLTAGE (TRANSISTOR) unit in V

Symbol	Q501	Q502	Q503	Q504	Q505	Q508	Q509
Transistor	2SD882	2SC1383	2SC2120	2SC2120	2SA683	2SA1015	2SC1815
Emitter	8.68	4.95	0	0	4.86	9.42	0
Collector	9.43	7.35	0.01	0.01	1.55	9.41	1.81
Base	9.38	5.62	0.6	0.6	4.23	8.62	0.7

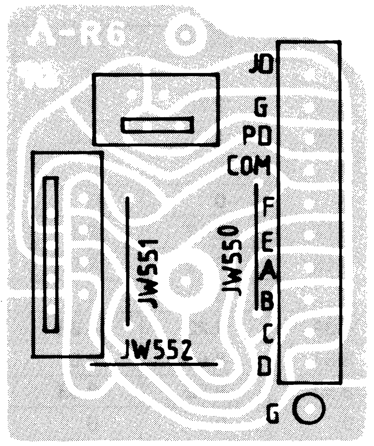
DISPLAY P.C.B


GND
OP
PU
D601
D602
MU
S1
SO
JW601
R601
R602
R603
R604
R605
R610
R612
C602
JW603
JW604
JW605
JW606
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
COM1
COM2
COM3
IC601
55
33
22
1
XIN
RST
G
DA
C601
R614
+B
BS0
BS1
BS2
BS3
BUC
JW607
R606
R609
R611
R613
JW608
PLAY/PAUSE
DOWN/FB
JW609
R607
STOP
UP/FF
R608
JW610
JW602
REPEAT

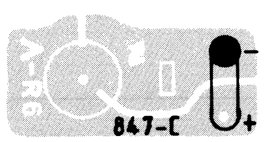
SW P.C.B


OPEN
+ FD -
+ DM -
A-R6
LD
LW553
LW554
C603
0.022
T
1613847-A

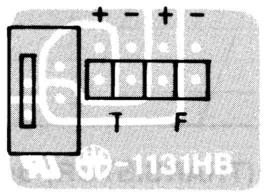
LD/PD P.C.B


A-R6
JD
G
PD
COM
F
E
A
B
C
D
G
JW551
JW550
JW552

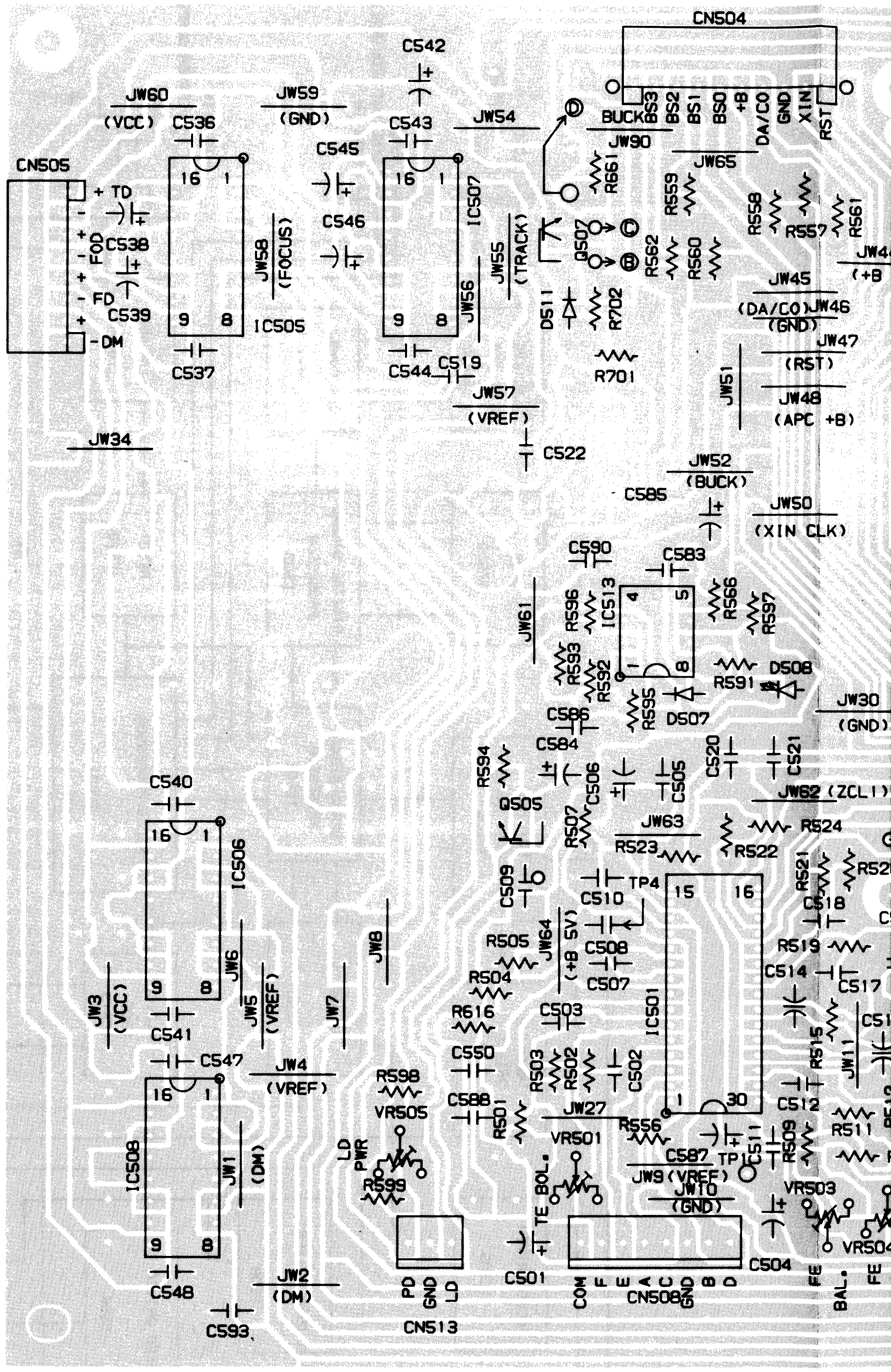
MOTOR P.C.B



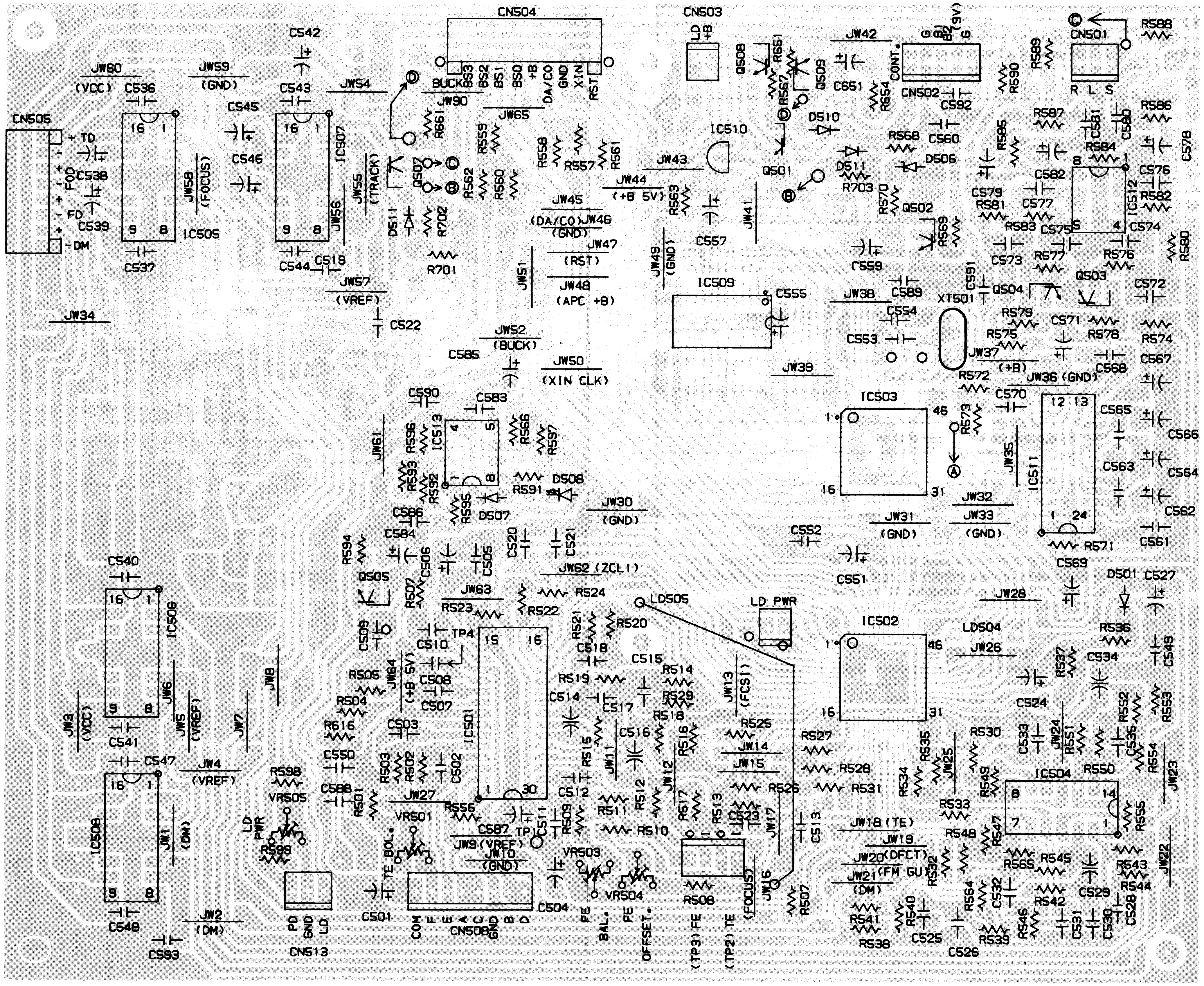
ACT P.C.B



CD MAIN P.C.


CN504
BUCK
BS3
BS2
BS1
BS0
+B
DA/CO
GND
XIN
RST
C542
JW60
(VCC)
C536
JW59
(GND)
C543
JW54
JW90
JW65
CN505
+ TD
FOD
C538
- FD
C539
- DM
C545
C546
IC505
JW58
(FOCUS)
IC507
JW55
(TRACK)
JW56
C537
C544
C519
JW57
(VREF)
C522
R661
Q507
R559
R562
R560
R558
R557
R561
D511
R702
R701
JW45
(DA/CO)
JW46
(GND)
JW47
(RST)
JW51
JW48
(APC +B)
JW34
JW52
(BUCK)
C585
JW50
(XIN CLK)
C590
C583
IC513
R536
R566
R597
JW61
R593
R592
R591
D508
R595
D507
JW30
(GND)
C586
C584
R594
C506
C505
C520
C521
Q505
JW62 (ZCL1)
JW63
R524
R523
R522
R507
C509
TP4
C510
R521
C518
R505
JW64
(+B 5V)
C508
C507
R519
R504
C514
C517
R616
C503
IC501
R515
JW11
C540
IC506
JW6
JW5
(VREF)
JW7
JW8
JW3
(VCC)
C541
C547
JW4
(VREF)
R598
VR505
C550
C588
R503
R502
C502
R501
JW27
VR501
R556
C587
TP1
R509
C512
R511
C511
IC508
JW1
(DM)
LD PWR
R599
TE BOL.
JW9 (VREF)
JW10
(GND)
VR503
VR504
C501
C504
CN508
COM F E A C GND B D
PD GND LD
CN513
FE BAL.
FE
C548
JW2
(DM)
C593

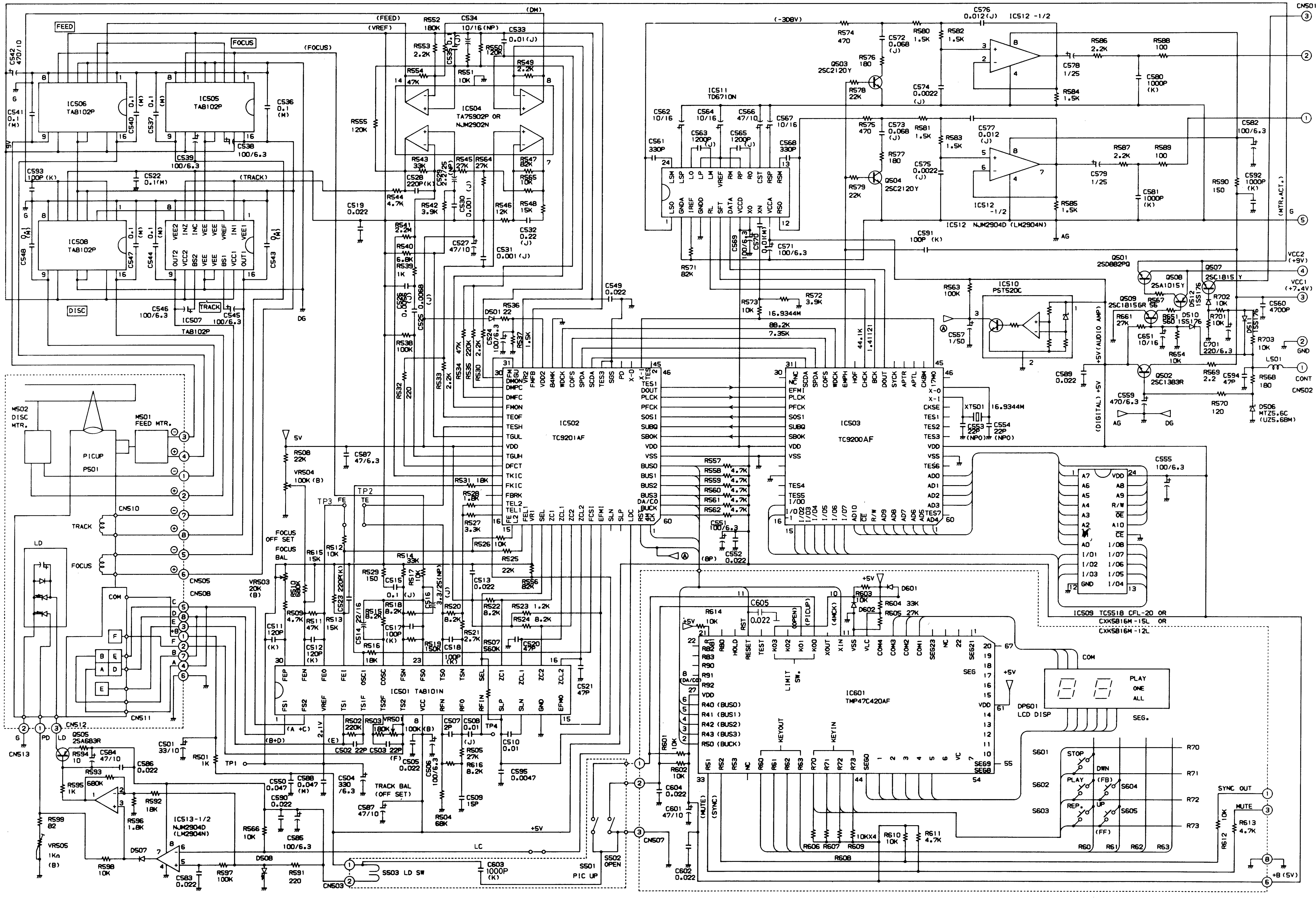
CD MAIN P.C.B E,K,Z



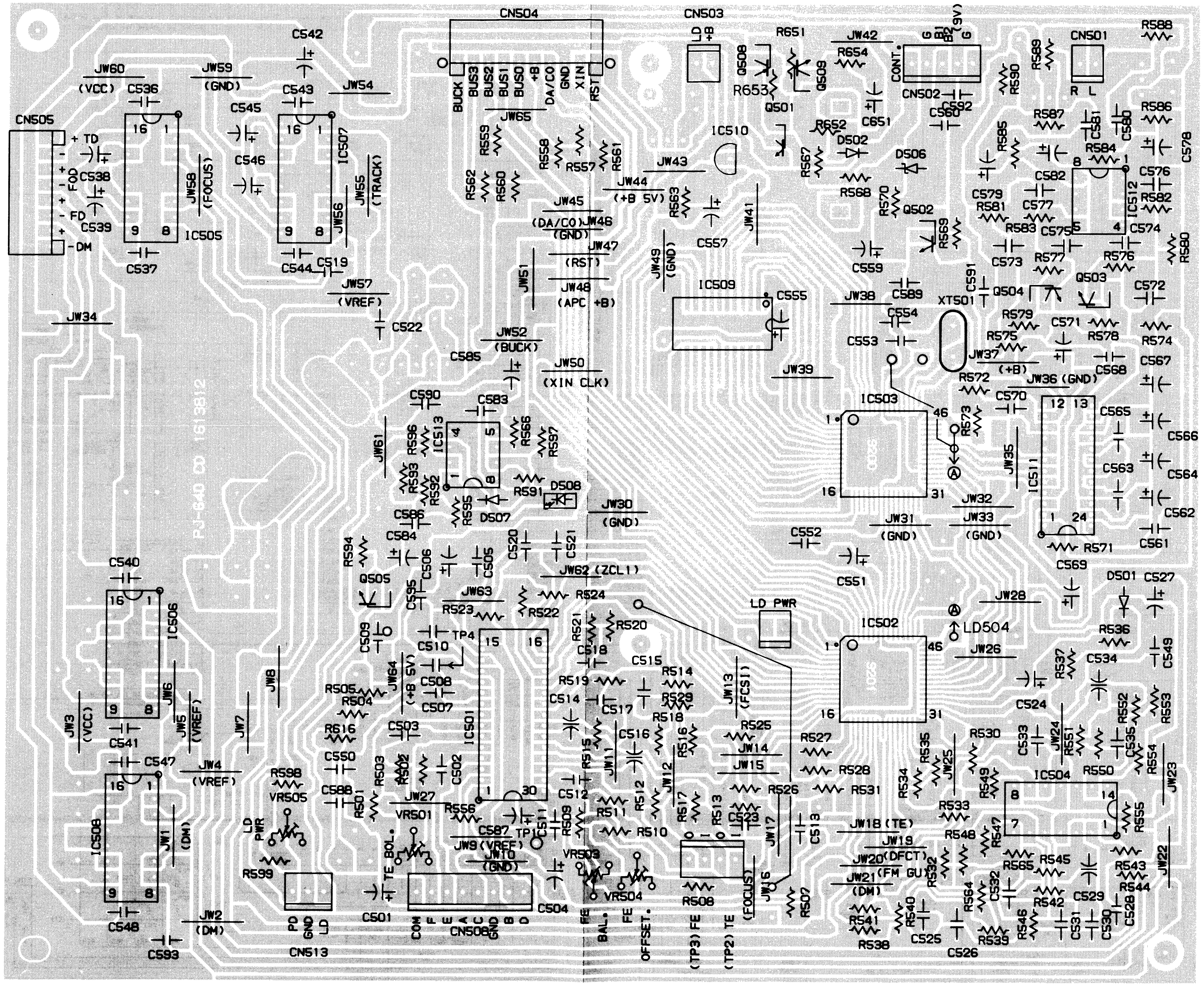
CN504
BUCK
BS3
BS2
BS1
BS0
+B
DA/CO
GND
XIN
RST
CN503
LD
+B
CN505
+ TD
- FOD +
- FD +
-DM
CN501
R L S
CN502
CONT.
G B1 B2(9V) G
CN513
PD
GND
LD
CN508
COM F E A C GND B D
JW60 (VCC)
JW59 (GND)
JW54
JW58 (FOCUS)
JW55 (TRACK)
JW56
JW57 (VREF)
JW34
JW90
JW65
JW43
JW44 (+B 5V)
JW45 (DA/CO)
JW46 (GND)
JW47 (RST)
JW48 (APC +B)
JW49 (GND)
JW41
JW42
JW51
JW52 (BUCK)
JW50 (XIN CLK)
JW38
JW39
JW37 (+B)
JW36 (GND)
JW35
JW61
JW30 (GND)
JW31 (GND)
JW32
JW33 (GND)
JW62 (ZCL1)
JW63
JW64 (+B 5V)
JW28
JW26
JW3 (VCC)
JW5 (VREF)
JW6
JW7
JW8
JW4 (VREF)
JW1 (DM)
JW2 (DM)
JW27
JW9 (VREF)
JW10 (GND)
JW11
JW12
JW13 (FCS1)
JW14
JW15
JW16
JW17
JW18 (TE)
JW19
JW20 (DFCT)
JW21 (FM GU)
(DM)
JW24
JW25
JW22
JW23
IC505
IC507
IC510
IC509
IC512
IC503
IC511
IC513
IC506
IC508
IC501
IC502
IC504
Q501
Q502
Q503
Q504
Q505
Q507
Q508
Q509
D501
D506
D507
D508
D510
D511
XT501
LD504
LD505
LD PWR
TP1
TP4
VR501
VR503
VR504
VR505
TE BAL.
FE BAL.
FE OFFSET.
(TP3) FE
(TP2) TE
(FOCUS)
C501 C504 C505 C506 C507 C508 C509 C510 C511 C512 C513 C514 C515 C516 C517 C518 C519 C520 C521 C522 C523 C524 C525 C526 C527 C528 C529 C530 C531 C532 C533 C534 C535 C536 C537 C538 C539 C540 C541 C542 C543 C544 C545 C546 C547 C548 C549 C550 C551 C552 C553 C554 C555 C557 C559 C560 C561 C562 C563 C564 C565 C566 C567 C568 C569 C570 C571 C572 C573 C574 C575 C576 C577 C578 C579 C580 C581 C582 C583 C584 C585 C586 C587 C588 C589 C590 C591 C592 C593 C651
R501 R502 R503 R504 R505 R507 R508 R509 R510 R511 R512 R513 R514 R515 R516 R517 R518 R519 R520 R521 R522 R523 R524 R525 R526 R527 R528 R529 R530 R531 R532 R533 R534 R535 R536 R537 R538 R539 R540 R541 R542 R543 R544 R545 R546 R547 R548 R549 R550 R551 R552 R553 R554 R555 R556 R557 R558 R559 R560 R561 R562 R563 R564 R565 R566 R567 R568 R569 R570 R571 R572 R573 R574 R575 R576 R577 R578 R579 R580 R581 R582 R583 R584 R585 R586 R587 R588 R589 R590 R591 R592 R593 R594 R595 R596 R597 R598 R599 R616 R651 R654 R661 R701 R702 R703
A
B
C
D
E

SCHEMATIC DIAGRAM (CD) E,K,Z

WARNING:
REPLACEMENT PARTS WITH SPECIAL SAFETY CHARACTERISTICS ARE IDENTIFIED BY A ⚠ SHOWING ON THIS SCHEMATIC DIAGRAM. REPLACE THESE CRITICAL COMPONENTS WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING. SERVICE PERSONNEL SHOULD MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

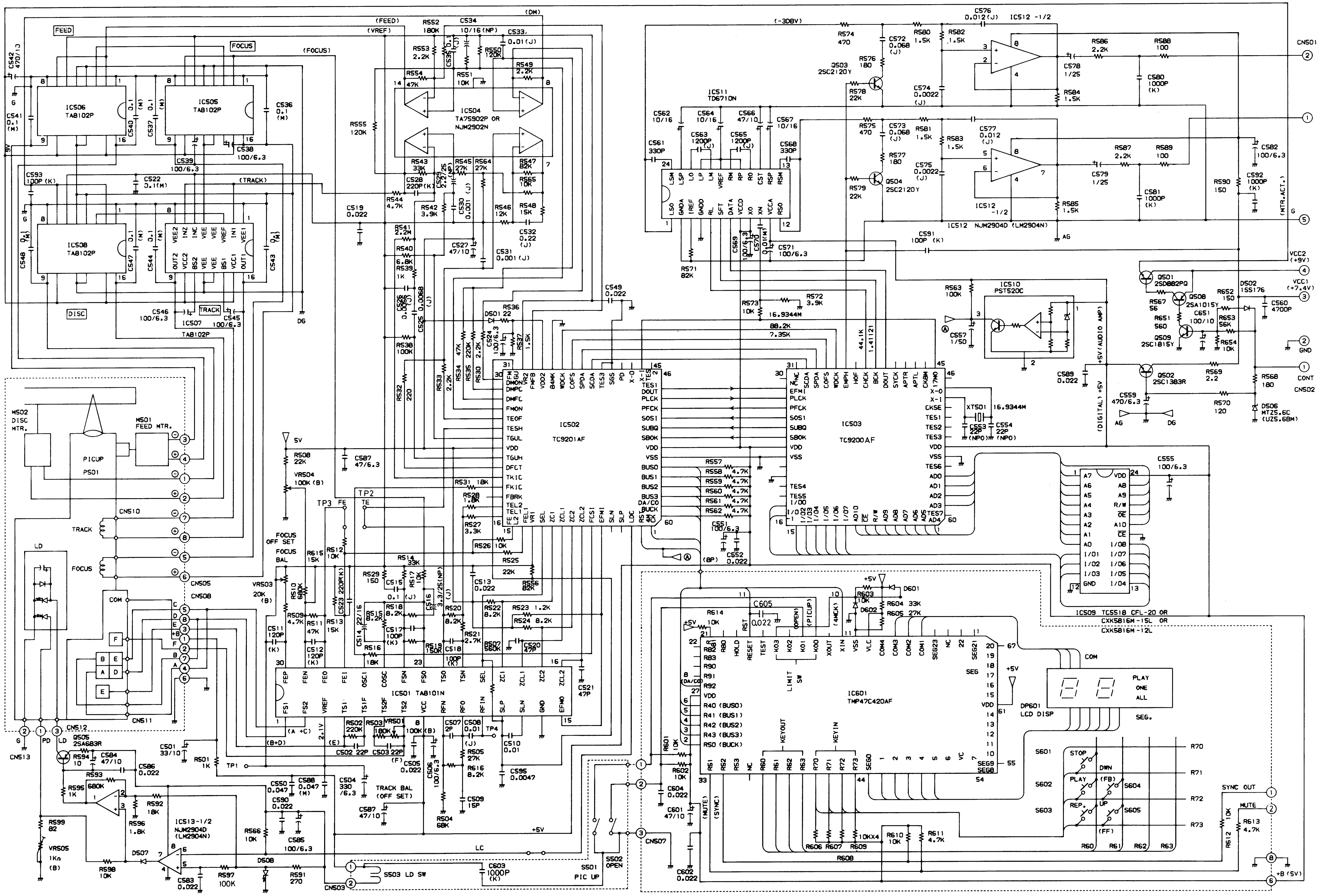

FEED
FOCUS
TRACK
DISC
(FEED)
(VREF)
(FOCUS)
(TRACK)
(DM)
(-30BV)
IC506 TA8102P
IC505 TA8102P
IC508 TA8102P
IC507 TA8102P
IC504 TA75902P OR NJM2902N
IC502 TC9201AF
IC503 TC9200AF
IC501 TA8101N
IC511 TD6710N
IC512 -1/2
IC512 NJM2904D (LM2904N)
IC510 PST520C
IC509 TC5518 CFL-20 OR CXK5816M-15L OR CXK5816M-12L
IC601 TMP47C420AF
IC513-1/2 NJM2904D (LM2904N)
XT501 16.9344M
M502 DISC MTR.
M501 FEED MTR.
PICUP P501
CN501
CN502
CN503
CN505
CN507
CN508
CN510
CN511
CN512
CN513
S
L
R
G
VCC2 (+9V)
VCC1 (+7.4V)
GND
CONT
Q501 2SB882PQ
Q502 2SC1383R
Q503 2SC2120Y
Q504 2SC2120Y
Q505 2SA683R
Q507 2SC1815Y
Q508 2SA1015Y
Q509 2SC1815GR
D506 MTZ5.6C (UZ5.6BM)
TP1
TP2
TP3
TP4
FE
TE
FOCUS OFF SET
FOCUS BAL
TRACK BAL (OFF SET)
VRS03
VRS04
VRS05
+5V
LC
S503 LD SW
S501 PIC UP
S502 OPEN
DP601 LCD DISP
PLAY
ONE
ALL
COM
SEG
SEG.
S601
S602
S603
STOP
PLAY
REP.
DWN
(FB)
UP
(FF)
S604
S605
R70
R71
R72
R73
R60
R61
R62
R63
SYNC OUT
MUTE
+B (5V)
LIMIT SW.
KEYOUT
KEYIN
(MUTE)
(SYNC)
+5V (AUDIO AMP)
(DIGITAL) +5V
(MTR.ACT.)
AG
DG
LD
PD
A
B
C
D
E
F

MAIN P.C.B (CD) U,H

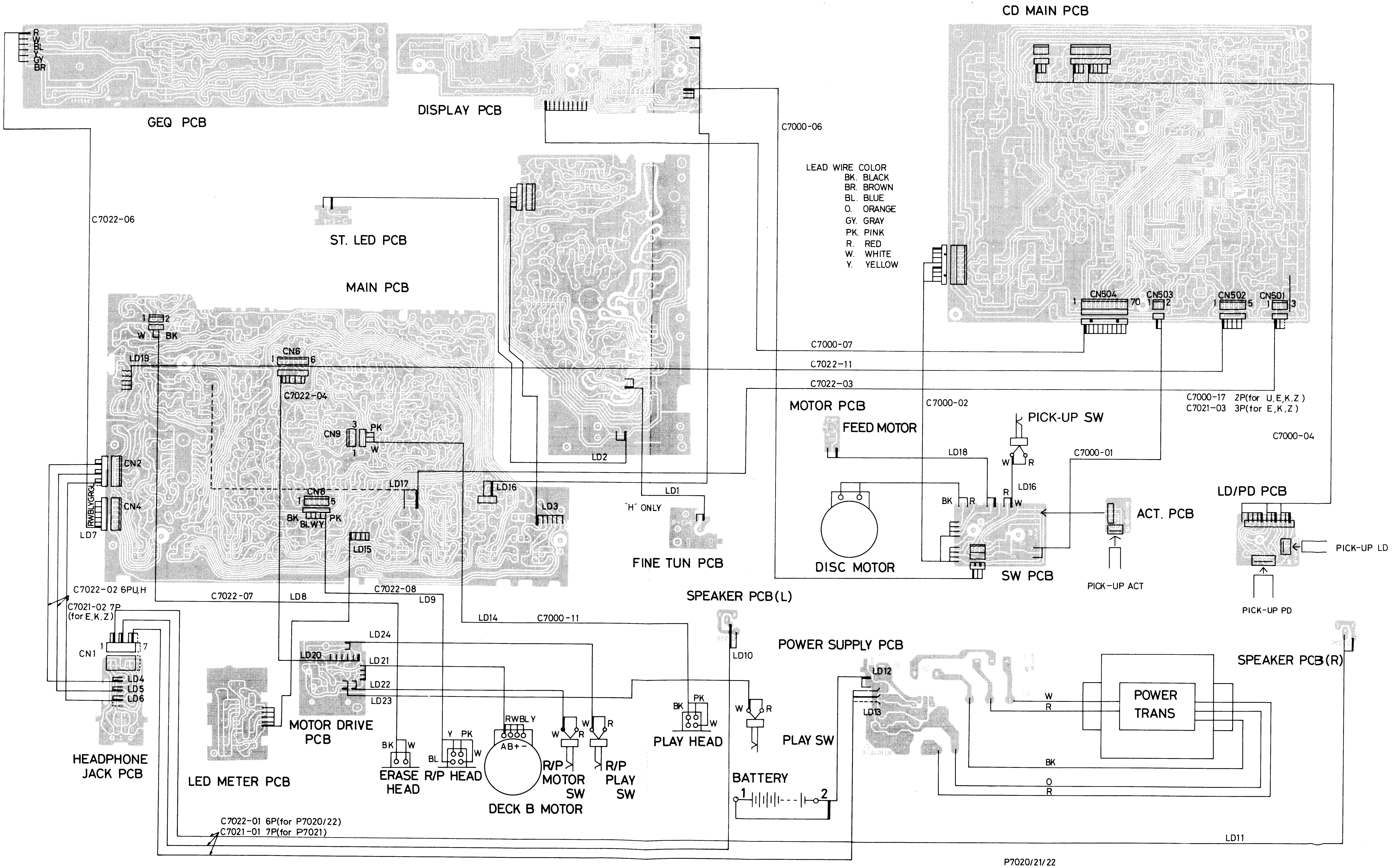

CN504
BUCK
BUS3
BUS2
BUS1
BUS0
+B
DA/CO
GND
XIN
RST
CN503
LD
+B
R651
Q508
Q509
R653
Q501
JW42
R654
CONT.
G
B1
B2 (9V)
G
CN502
CN501
R L
R588
R589
R590
R586
CN505
+ TD
- FOD
+
- FD
+
-DM
C538
C539
JW60
(VCC)
C536
JW59
(GND)
C542
C543
JW54
C545
C546
IC505
IC507
JW58
(FOCUS)
JW55
(TRACK)
JW56
C537
C544
C519
JW57
(VREF)
C522
JW34
JW65
R559
R558
R557
R561
R562
R560
JW43
JW44
(+B 5V)
JW45
(DA/CO)
JW46
(GND)
JW47
(RST)
JW48
(APC +B)
JW51
JW52
(BUCK)
JW50
(XIN CLK)
C585
IC510
R652
C651
D502
D506
R567
R568
R570
Q502
R569
R563
C557
JW41
JW49
(GND)
IC509
C555
JW38
C589
C591
XT501
C554
C553
JW39
C559
R587
C581
C580
R585
R584
C578
C576
IC512
C579
C582
R582
R581
C577
R583
C575
C574
R580
C573
R577
R576
Q504
Q503
C572
R579
C571
R578
R574
R575
JW37
(+B)
C567
C568
R572
JW36 (GND)
C570
IC503
R573
C565
C566
IC511
JW35
C563
C564
C562
JW32
JW31
(GND)
JW33
(GND)
R571
C561
C552
C551
C569
D501
C527
C590
C583
IC513
R596
R593
R592
R566
R597
JW61
R591
D508
R595
D507
JW30
(GND)
C586
C584
R594
C506
C505
C520
C521
JW62 (ZCL1)
Q505
C595
JW63
R524
R523
R522
R521
R520
LD PWR
IC502
LD504
JW28
R536
C549
JW26
R537
C534
C509
TP4
C510
JW64
(+B 5V)
C508
C507
R505
R504
IC501
C518
C515
R519
R514
C514
C517
R529
R518
JW13
(FCS1)
C524
R552
R553
C540
IC506
JW6
JW5
(VREF)
JW7
JW8
JW3
(VCC)
C541
C547
JW4
(VREF)
R616
C503
R503
R502
C502
C550
C588
R501
JW27
VR501
R598
VR505
LD PWR
R599
TE BOL.
R556
C587
TP1
JW9 (VREF)
JW10
(GND)
C511
R509
C512
R511
R510
R512
R517
R513
C523
VR503
VR504
R516
C516
JW11
JW12
R515
R525
JW14
JW15
R526
R527
R528
R531
JW17
C513
R507
R508
JW16
JW18 (TE)
JW19
JW20 (DFCT)
JW21 (FM GU)
(DM)
R541
R538
R540
C525
C526
R533
R534
R535
JW25
R530
C533
JW24
R551
C535
R554
JW23
R549
IC504
R550
R555
R548
R547
R532
R564
C532
R565
R545
R543
R544
R542
C529
C528
C530
C531
R546
R539
JW22
IC508
JW1
(DM)
C548
C593
JW2
(DM)
CN513
PD
GND
LD
C501
CN508
COM
F
E
A
C
GND
B
D
C504
FE
BAL.
FE
OFFSET.
(TP3) FE
(TP2) TE
(FOCUS)
PJ-840 CD 1613812

SCHEMATIC DIAGRAM (CD) U,H

WARNING:
REPLACEMENT PARTS WITH SPECIAL SAFETY CHARACTERISTICS ARE IDENTIFIED BY A ⚠ SHOWING ON THIS SCHEMATIC DIAGRAM. REPLACE THESE CRITICAL COMPONENTS WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING. SERVICE PERSONNEL SHOULD MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.


FEED
FOCUS
TRACK
DISC
IC506 TA8102P
IC505 TA8102P
IC508 TA8102P
IC507 TA8102P
IC504 TA75902P OR NJM2902N
IC502 TC9201AF
IC503 TC9200AF
IC501 TA8101N
IC511 TD6710N
IC512 NJM2904D (LM2904N)
IC510 PST520C
IC509 TC5518 CFL-20 OR CXK5816M-15L OR CXK5816M-12L
IC601 TMP47C420AF
IC513-1/2 NJM2904D (LM2904N)
XT501 16.9344M
DP601 LCD DISP
PLAY
ONE
ALL
COM
SEG.
MS02 DISC MTR.
MS01 FEED MTR.
PICUP PS01
CN510
CN511
CN512
CN513
CN505
CN508
CN501
CN502
CN503
CN507
LD
PD
Q505 2SA683R
Q503 2SC2120Y
Q504 2SC2120Y
Q501 2SD882PQ
Q508 2SA1015Y
Q509 2SC1815Y
Q502 2SC1383R
D502 1SS176
D506 MTZS.6C (UZS.6BM)
S503 LD SW
S501 PIC UP
S502 OPEN
S601 STOP
S602 PLAY
S603 REP.
S604
S605
DWN
(FB)
UP
(FF)
LIMIT SW
KEYOUT
KEYIN
TP1
TP2 TE
TP3 FE
TP4
FOCUS OFF SET
FOCUS BAL
TRACK BAL (OFF SET)
VR503
VR504
VR505
SYNC OUT
MUTE
L
R
G
GND
CONT
VCC1 (+7.4V)
VCC2 (+9V)
+B (5V)
(-30BV)
(DIGITAL) +5V
+5V (AUDIO AMP)
AG
DG
PJ640-CD-A

WIRING DIAGRAM



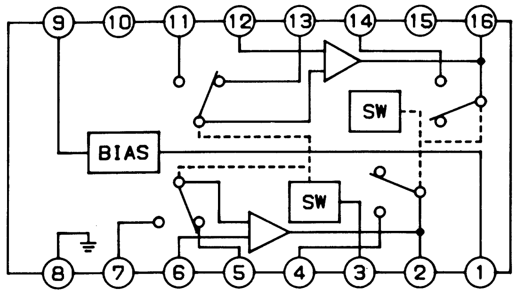
LEAD WIRE COLOR
BK. BLACK
BR. BROWN
BL. BLUE
O. ORANGE
GY. GRAY
PK. PINK
R. RED
W. WHITE
Y. YELLOW

CD MAIN PCB
GEQ PCB
DISPLAY PCB
ST. LED PCB
MAIN PCB
C7022-06
C7000-06
C7000-07
C7022-11
C7022-03
C7022-04
C7000-02
C7000-01
C7000-04
C7000-17 2P(for U,E,K,Z)
C7021-03 3P(for E,K,Z)
CN504
CN503
CN502
CN501
1
70
2
5
3
CN6
6
CN9
3
PK
W
CN2
CN4
CN8
BK
BLWY
LD19
LD7
LD17
LD16
LD15
LD3
LD2
LD1
"H" ONLY
FINE TUN PCB
MOTOR PCB
FEED MOTOR
DISC MOTOR
PICK-UP SW
LD18
SW PCB
ACT. PCB
PICK-UP ACT
LD/PD PCB
PICK-UP LD
PICK-UP PD
C7022-02 6PU,H
C7021-02 7P (for E,K,Z)
CN1
7
LD4
LD5
LD6
HEADPHONE JACK PCB
C7022-07
LD8
C7022-08
LD9
LD14
C7000-11
LD24
LD20
LD21
LD22
LD23
LED METER PCB
MOTOR DRIVE PCB
ERASE HEAD
R/P HEAD
Y
RWBLY
AB+-
DECK B MOTOR
R/P MOTOR SW
R/P PLAY SW
PLAY HEAD
PLAY SW
SPEAKER PCB(L)
LD10
POWER SUPPLY PCB
LD12
LD13
BATTERY
POWER TRANS
SPEAKER PCB(R)
LD11
C7022-01 6P(for P7020/22)
C7021-01 7P(for P7021)

P7020/21/22
"U""E""H"

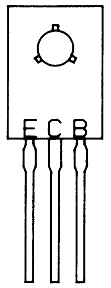
IC INTERNAL BLOCK DIAGRAM (MAIN SECTION)

TA7784P (IC303)

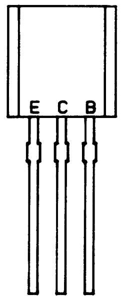


9
10
11
12
13
14
15
16
BIAS
SW
SW
8
7
6
5
4
3
2
1

TRANSISTOR LEADS IDENTIFICATION

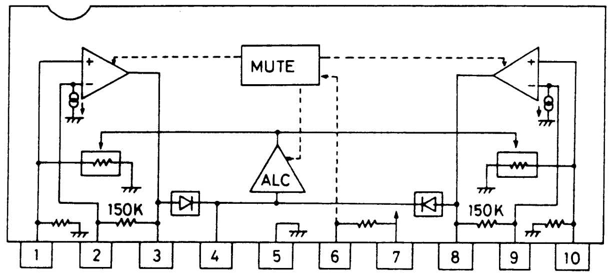


Q310, Q311



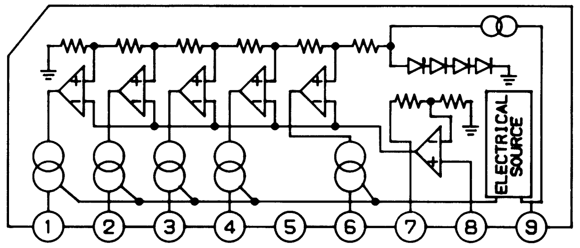
All transistors except Q310 and Q311.

BA3312



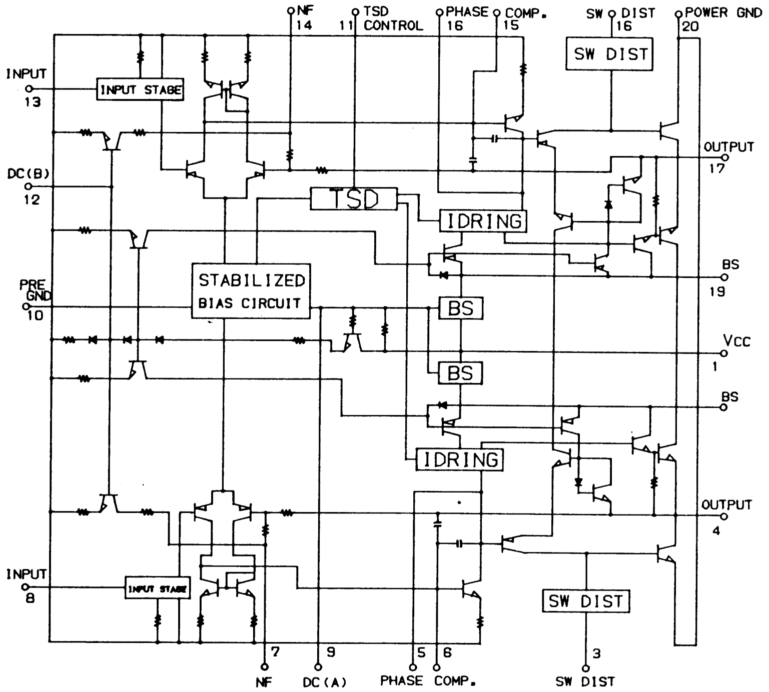
MUTE
ALC
150K
150K
1
2
3
4
5
6
7
8
9
10

BA6124



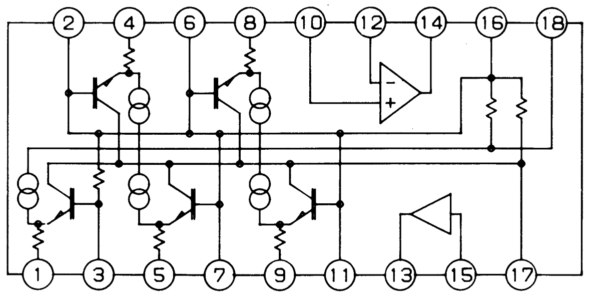
ELECTRICAL SOURCE
1
2
3
4
5
6
7
8
9

LA4500 (IC305)



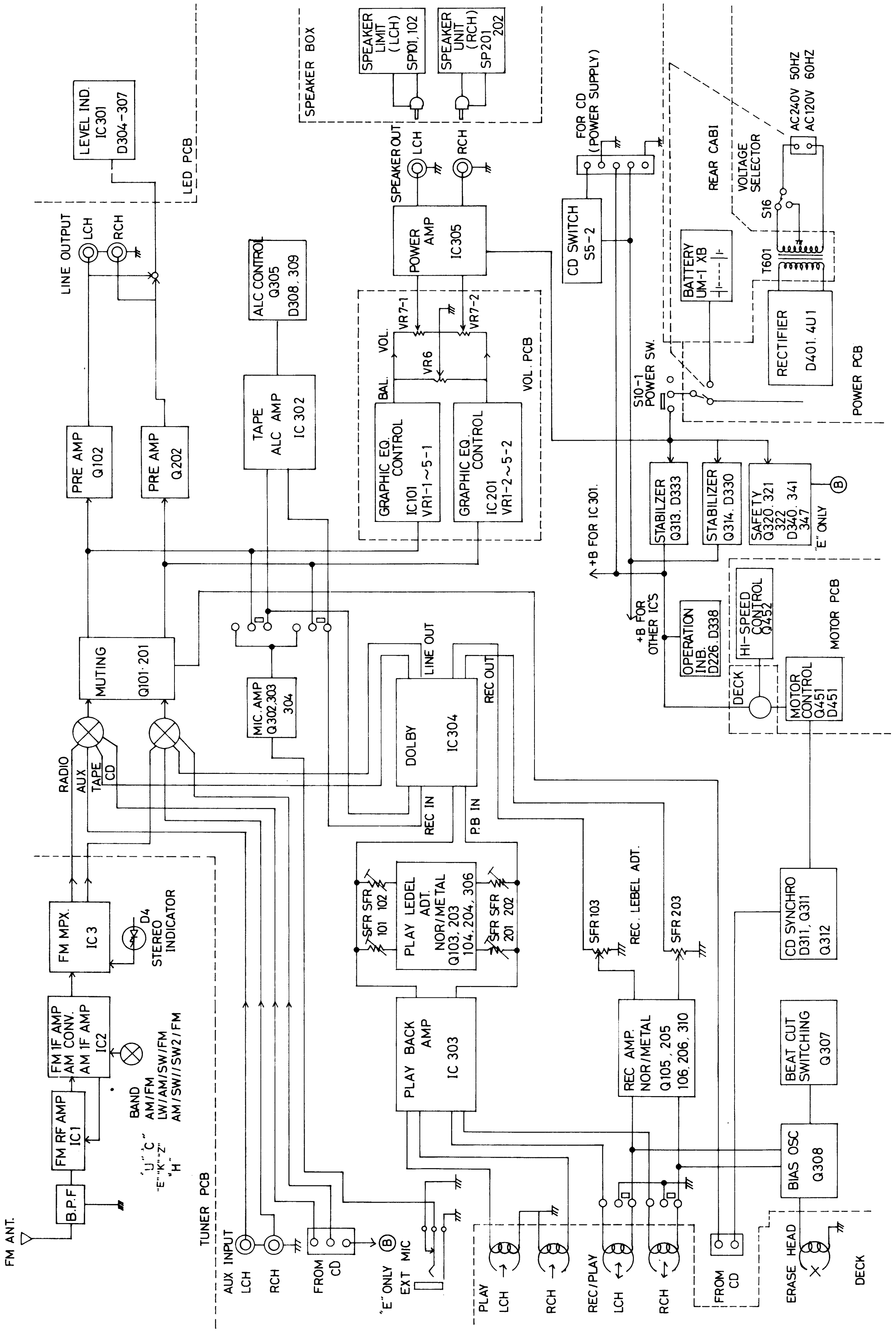
NF 14
TSD 11 CONTROL
PHASE 16
COMP. 15
SW DIST 16
POWER GND 20
SW DIST
INPUT 13
INPUT STAGE
DC(B) 12
OUTPUT 17
TSD
IDRING
BS 19
STABILIZED BIAS CIRCUIT
PRE GND 10
BS
Vcc 1
BS
BS
IDRING
OUTPUT 4
INPUT 8
INPUT STAGE
SW DIST
7 NF
9 DC(A)
5 6 PHASE COMP.
3 SW DIST

BA3812

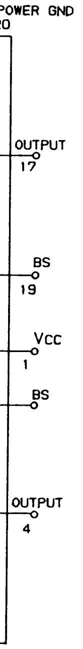


2
4
6
8
10
12
14
16
18
1
3
5
7
9
11
13
15
17

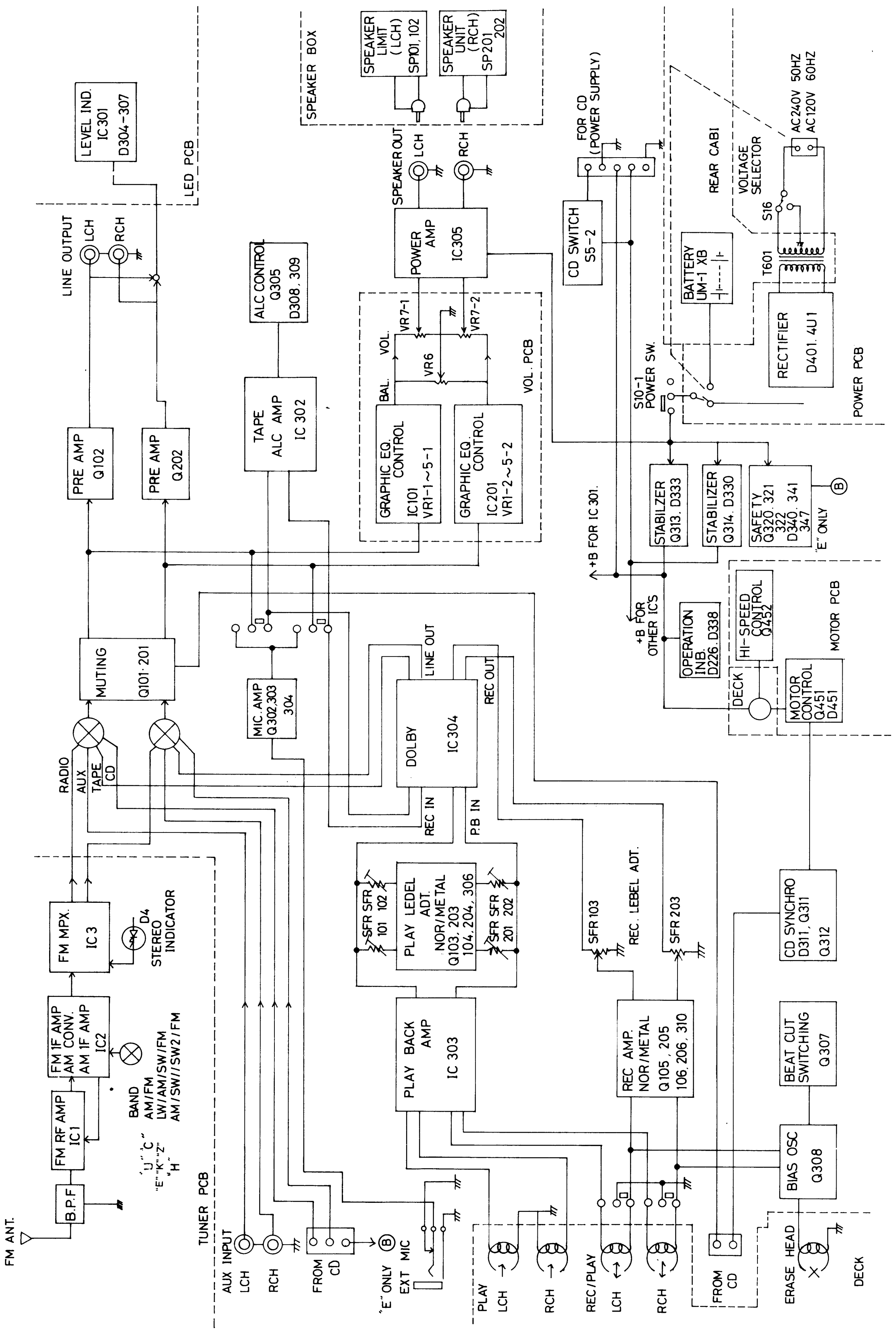
BLOCK DIAGRAM (MAIN SECTION)



SPEAKER BOX
SPEAKER LIMIT (LCH) SP101, 102
SPEAKER UNIT (RCH) SP201, 202
SPEAKER OUT LCH RCH
LEVEL IND. IC301 D304-307
LED PCB
LINE OUTPUT LCH RCH
POWER AMP IC305
ALC CONTROL Q305 D308, 309
FOR CD (POWER SUPPLY)
CD SWITCH S5-2
BATTERY UM-1 X8
REAR CABI
VOLTAGE SELECTOR
S16
AC240V 50HZ AC120V 60HZ
T601
RECTIFIER D401, 4U1
POWER PCB
S10-1 POWER SW.
VOL. VR7-1 VR7-2 VR6
BAL.
VOL. PCB
GRAPHIC EQ. CONTROL IC101 VR1-1~5-1
GRAPHIC EQ. CONTROL IC201 VR1-2~5-2
TAPE ALC AMP IC 302
PRE AMP Q102
PRE AMP Q202
STABILZER Q313, D333
STABILIZER Q314, D330
SAFETY Q320, 321 322 D340, 341 347
'E' ONLY
+B FOR IC301
+B FOR OTHER IC'S
OPERATION INB. D226, D338
HI-SPEED CONTROL Q452
DECK
MOTOR CONTROL Q451 D451
MOTOR PCB
MUTING Q101, 201
MIC. AMP Q302, 303 304
DOLBY IC304
LINE OUT
REC OUT
REC IN
P.B IN
RADIO AUX TAPE CD
FM MPX. IC3
D4 STEREO INDICATOR
PLAY LEDEL ADT. NOR/METAL Q103, 203 104, 204, 306
SFR 101 102
SFR 201 202
SFR 103
REC. LEBEL ADT.
SFR 203
CD SYNCHRO D311, Q311 Q312
FM IF AMP AM CONV. AM IF AMP IC2
BAND AM/FM LW/AM/SW/FM AM/SW/SW2/FM
"U" "C" "E" "K" "Z" "H"
PLAY BACK AMP IC 303
REC. AMP. NOR/METAL Q105, 205 106, 206, 310
BEAT CUT SWITCHING Q307
FM RF AMP IC1
B.P.F
BIAS OSC Q308
TUNER PCB
FM ANT.
AUX INPUT LCH RCH
FROM CD
'E' ONLY EXT MIC
PLAY LCH RCH
REC/PLAY LCH RCH
FROM CD
ERASE HEAD
DECK


POWER GND
OUTPUT 17
BS 19
Vcc 1
BS
OUTPUT 4

BLOCK DIAGRAM (MAIN SECTION)


LEVEL IND. IC301 D304~307
LED PCB
LINE OUTPUT LCH RCH
SPEAKER BOX
SPEAKER UNIT (LCH) SP101, 102
SPEAKER UNIT (RCH) SP201, 202
SPEAKER OUT LCH RCH
POWER AMP IC305
ALC CONTROL Q305 D308, 309
TAPE ALC AMP IC 302
VOL. VR7-1 VR7-2 VR6 BAL.
GRAPHIC EQ. CONTROL IC101 VR1-1~5-1
GRAPHIC EQ. CONTROL IC201 VR1-2~5-2
VOL. PCB
PRE AMP Q102
PRE AMP Q202
MUTING Q101·201
MIC AMP Q302,303 304
DOLBY IC304
LINE OUT
REC OUT
REC IN
PB IN
RADIO AUX TAPE CD
SFR SFR 101 102
PLAY LEDEL ADT. NOR/METAL Q103, 203 104, 204, 306
SFR SFR 201 202
PLAY BACK AMP IC 303
SFR 103 REC. LEBEL ADT. SFR 203
REC AMP. NOR/METAL Q105, 205 106, 206, 310
FM MPX IC 3
D4 STEREO INDICATOR
FM IF AMP AM CONV. AM IF AMP IC2
BAND AM/FM LW/AM/SW/FM AM/SW1/SW2/FM
"U" "C" "E" "K" "Z" "H"
FM RF AMP IC1
B.P.F
FM ANT.
TUNER PCB
AUX INPUT LCH RCH
FROM CD
"E" ONLY EXT MIC
PLAY LCH RCH
REC/PLAY LCH RCH
FROM CD
ERASE HEAD
DECK
FOR CD (POWER SUPPLY)
CD SWITCH S5-2
REAR CABI
VOLTAGE SELECTOR S16
AC240V 50HZ AC120V 60HZ
BATTERY UM-1 X8
T601
RECTIFIER D401, 4U1
S10-1 POWER SW.
POWER PCB
+B FOR IC 301.
STABILIZER Q313, D333
STABILIZER Q314, D330
SAFETY Q320, 321 322 D340, 341 347
"E" ONLY
+B FOR OTHER ICS
OPERATION IND. D226, D338
HI-SPEED CONTROL Q452
DECK
MOTOR CONTROL Q451 D451
MOTOR PCB
CD SYNCHRO D311, Q311 Q312
BEAT CUT SWITCHING Q307
BIAS OSC Q308

IC AND TRANSISTOR VOLTAGE CHART

VOLTAGE (IC)

Pin No.	1	2	3	4	5	6	7	8	9	10
IC 1 FM	1.03	1.07	5.93	0	0	5.96	1.74	5.35	5.96	–
IC 2 FM	0	0	0	0	0	5.01	5.01	5.01	5.03	5.96
AM	5.97	5.97	5.97	5.97	0	5.5	5.5	5.5	5.5	6.45
IC3 FM MPX	6.25	2.33	1.65	1.65	1.63	5.95	0	0.4	2.45	1.36
IC301 MATER	8.58	8.58	8.58	8.58	0	0.17	0.01	0	10.14	–
IC302 REC	0	0.57	3.22	0.67	0	7.09	7.13	3.14	0.57	0
IC303 R/P	6.83	2.33	0.04	2.33	2.18	2.18	2.18	0	2.18	2.18
IC304 DOLBY	3.54	7.0	3.55	3.55	0.17	3.63	0.37	3.6	3.6	0.37
IC305 POWER	16.43	15.16	0.57	7.9	8.1	0.76	1.17	0.01	15.94	0
IC101/201PRE	3.18	4.33	4.33	3.18	3.18	4.33	4.33	3.18	3.18	3.62

Pin No.	11	12	13	14	15	16	17	18	19	20
IC 2 FM	1.99	5.97	1.95	4.45	0.06	5.93	0.01	0	–	–
AM	1.95	6.45	0	4.92	0.03	6.41	0.01	0	–	–
IC 3	1.35	0.06	1.36	1.36	1.36	0.11	–	–	–	–
IC 303	2.18	2.18	2.18	2.32	0.23	2.33	–	–	–	–
IC 304	3.64	3.49	1.2	3.54	0	3.54	–	–	–	–
IC 305	0.47	1.05	0.01	1.17	0.76	8.1	7.9	0.57	15.1	0
IC 101/201	4.33	3.63	3.63	3.63	4.27	4.36	6.76	0	–	–

VOLTAGE (TRANSISTOR)

Simbol	Q101	Q102	Q103	Q104	Q105	Q106	Q201	Q202	Q203	Q204	Q205
Base	0.696	0.84	0.246	0.652	1.86	0.66	0.696	0.84	0.246	0.652	1.86
Collector	0	4.43	0.042	0.042	3.56	0.005	0	4.43	0.042	0.042	3.56
Emitter	0	0.2	0	0	1.27	0	0	0.2	0	0	1.27

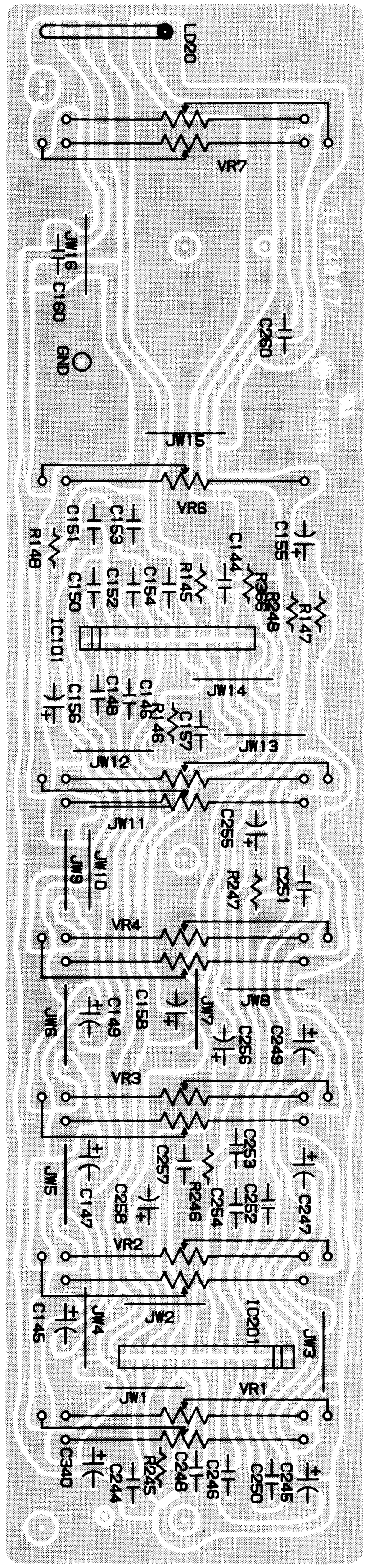
Simbol	Q206	Q301	Q302	Q303	Q304	Q305	Q306	Q307	Q308	Q310
Base	0.66	0.674	0.62	1.6	0.006	0.775	0.246	8.41	0.479	0.418
Collector	0	3.43	1.6	2.95	0.023	0.593	0.652	0.002	3.2	5.39
Emitter	0	0	0.02	0.92	0	0.563	0	0	0.229	0

Simbol	Q311	Q312	Q313	Q314	Q451	Q452	Q320	Q321	Q322
Base	0.698	0.012	8.24	10.76	0.741	8.45	0	0	0.72
Collector	0.012	0.014	16.39	16.39	0.064	7.79	8.24	10.76	0
Emitter	0	0	7.59	10.14	0	8.47	0	0	0

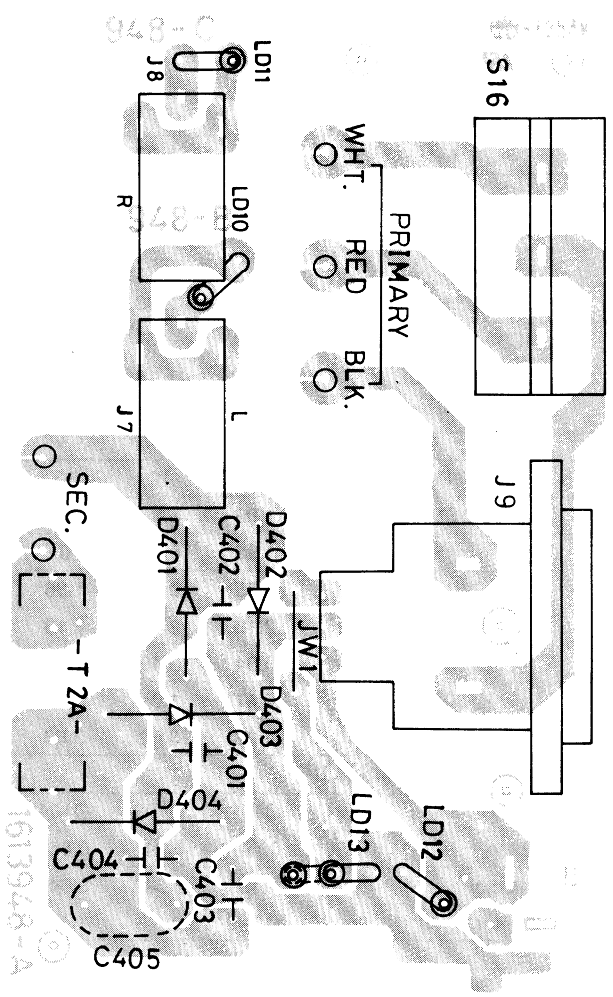
CADW95 "E" "K" "Z" ALL
CA-DW95 "U" "H" Q320, 321, 322, to OTHER

ALL Source is NO Signal.
MPX is FM MONO Position
Playback is NORMAL SPEED, Dolby OFF position
REC is NORMAL TAPE position

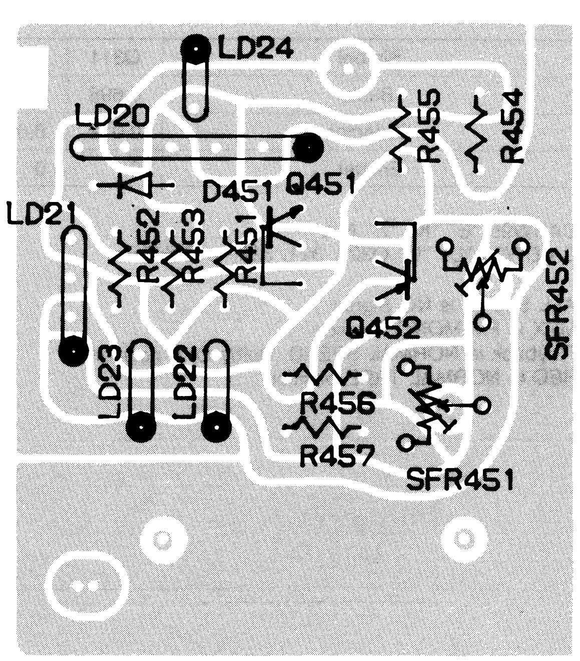
GRAPHIC EQ P.C.B


LD20
VR7
JW16
C160
GND
C260
JW15
VR6
R148
C151
C153
C155
C144
C150
C152
C154
R145
R248
R147
IC101
C156
C148
C146
R146
C157
JW14
JW13
JW12
JW11
C255
R247
C251
JW10
JW9
VR4
C149
C158
JW7
JW8
JW6
C256
C249
VR3
JW5
C147
C257
R246
C253
C252
C258
C254
C247
VR2
C145
JW4
JW2
IC201
JW3
JW1
VR1
C340
C244
R245
C248
C246
C250
C245

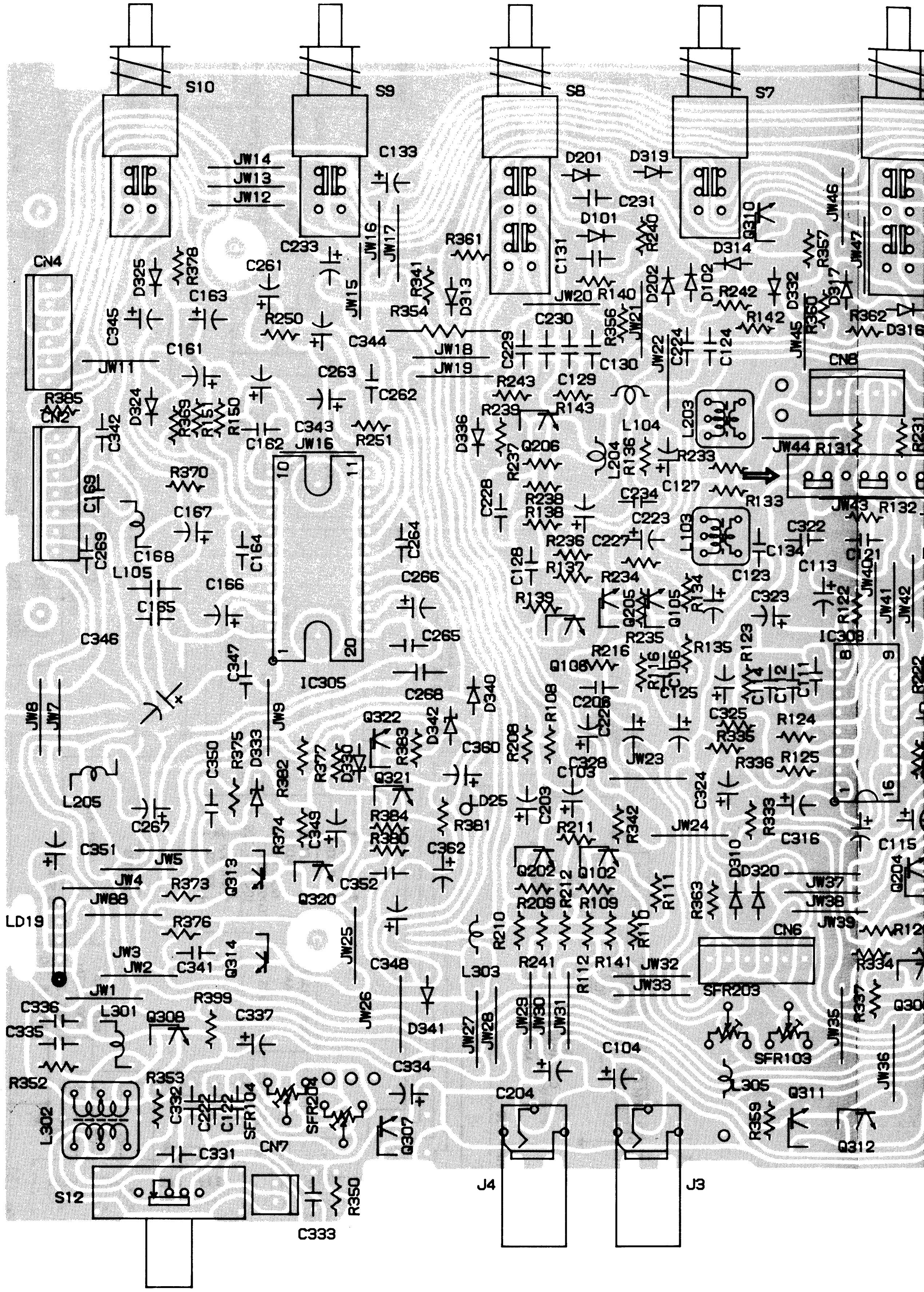
POWER SUPPLY P.C.B.


LD11
J8
LD10
R
L
J7
S16
PRIMARY
WHT.
RED
BLK.
SEC.
D401
C402
D402
JW1
J9
D403
C401
-T 2A-
D404
C404
C403
C405
LD13
LD12

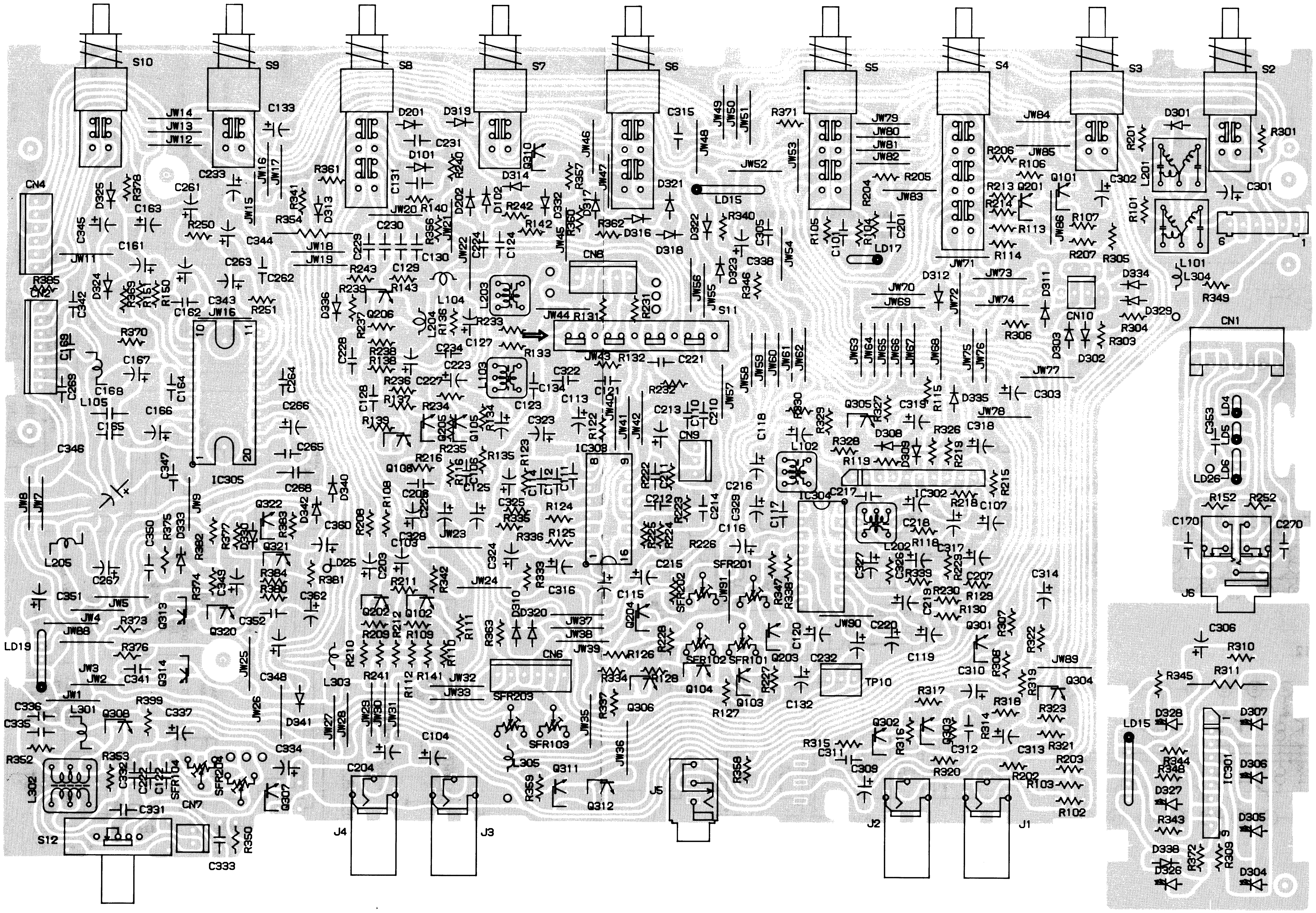
MOTOR P.C.B.


LD24
LD20
D451
Q451
R455
R454
LD21
R452
R453
R451
Q452
SFR452
LD23
LD22
R456
R457
SFR451

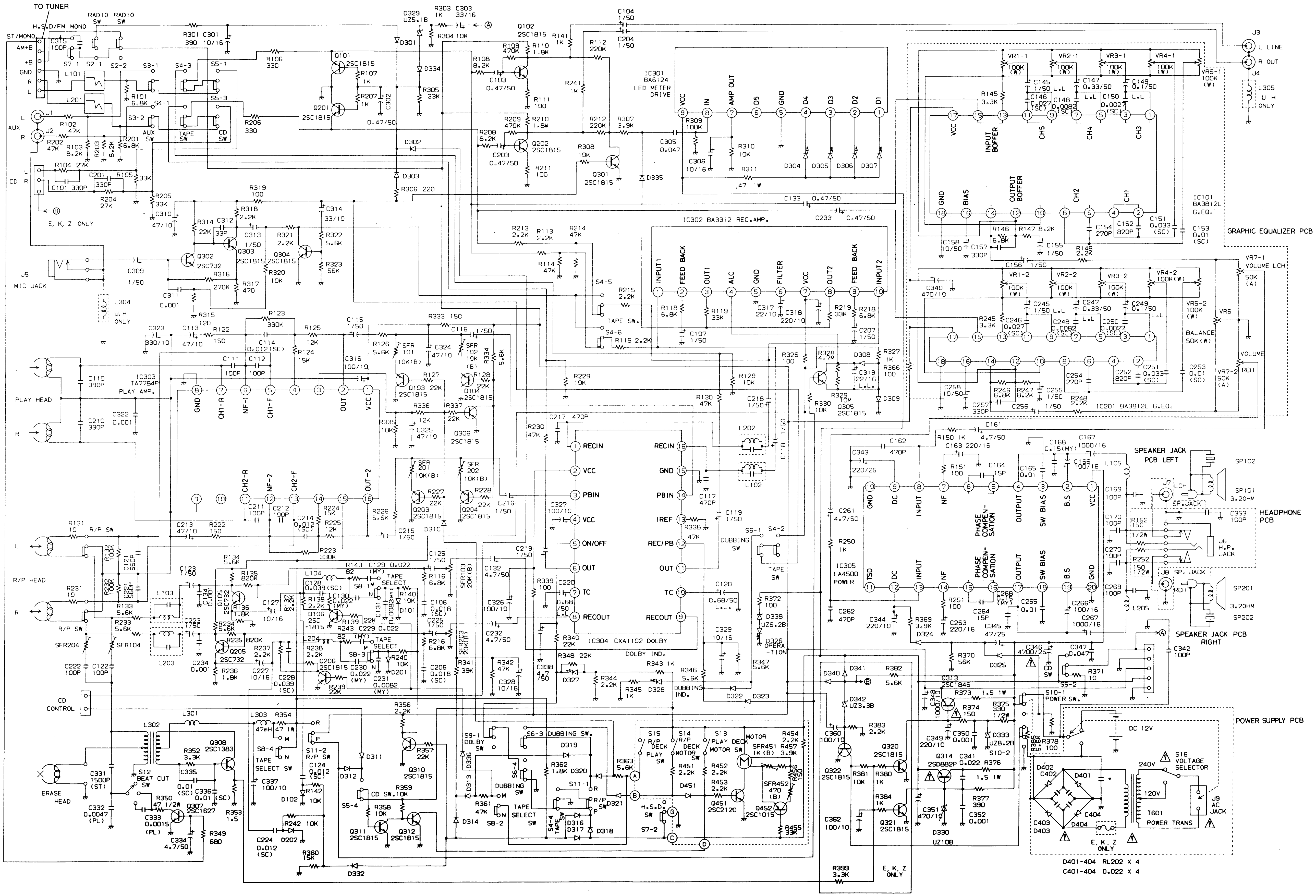
MAIN P.C.B U


S10
S9
S8
S7
JW14
JW13
JW12
C133
D201
D319
C231
D101
Q310
CN4
D325
R378
C261
C233
R361
C131
R240
D314
C163
R250
JW15
JW16
JW17
R341
D313
R354
JW20
R140
D202
D102
R242
D332
R357
JW47
C345
C161
C344
C230
JW21
R142
JW45
R362
D318
JW11
C263
C262
JW18
JW19
C229
R356
C224
C124
C130
JW22
CN8
R385
CN2
D324
R359
R151
R150
C162
C343
JW16
R251
R243
C129
R239
R143
L203
C342
D336
R237
Q206
L104
L204
R136
R233
JW44
R131
R370
C169
C167
C228
R238
R138
C234
C127
R133
C168
C269
C164
C264
R236
C227
C223
L103
C322
JW43
R132
C134
L105
C165
C166
C266
C128
R137
R234
C123
C113
R139
Q205
Q105
R134
C323
R122
JW40
JW41
JW42
C346
C265
R235
IC308
R216
R135
Q106
R116
C106
C121
C111
C347
IC305
C268
D340
R108
C208
C222
C125
C325
R124
R322
JW8
JW7
JW9
Q322
R383
D342
C360
R208
R335
R336
R125
C350
R375
D333
R382
R377
D330
Q321
C328
C103
JW23
C324
L205
C267
R374
R384
R380
C349
LD25
R381
C209
R211
R342
JW24
R333
C316
C351
JW5
Q313
C362
Q202
Q102
D310
D320
C115
JW4
R373
Q320
C352
R209
R212
R109
R363
JW37
JW38
Q204
JW88
R376
R210
R111
CN6
JW39
R12
LD19
JW3
JW2
C341
Q314
JW25
C348
L303
R241
R112
R141
JW32
JW33
R334
JW1
R399
JW26
D341
SFR203
C336
L301
Q308
C337
JW27
JW28
JW29
JW30
JW31
R337
C335
SFR103
JW35
C104
JW36
R352
R353
C332
C222
C122
SFR104
SFR204
C334
C204
L305
Q311
L302
R359
Q312
C331
CN7
Q307
S12
R350
J4
J3
C333

MAIN P.C.B U,H,E,K,Z

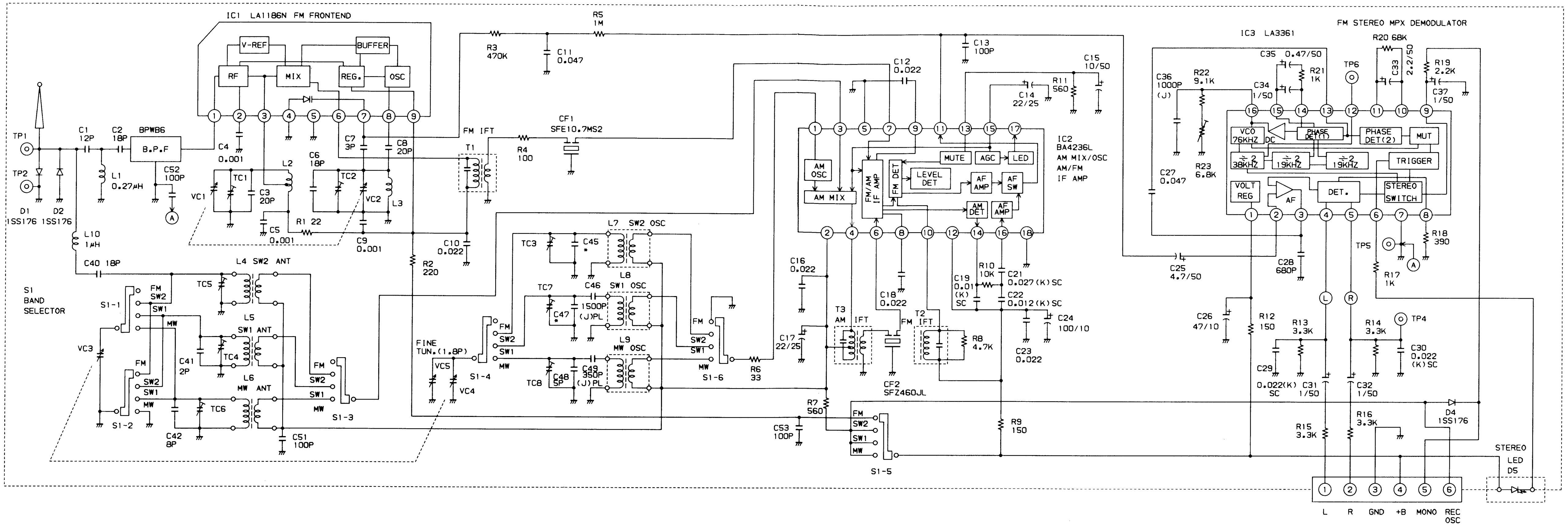

S10
S9
S8
S7
S6
S5
S4
S3
S2
JW14
JW13
JW12
C133
D201
D319
C231
D101
C315
JW49
JW50
JW51
JW48
JW46
JW47
R371
JW79
JW80
JW81
JW82
JW84
JW85
D301
R201
R301
CN4
C325
R378
C261
C233
JW16
JW17
R361
C131
R240
D314
Q310
R357
JW52
JW53
R206
R106
R205
R213
Q201
Q101
C302
L201
C301
C163
C345
C161
R250
C344
JW15
R341
R354
D313
C230
JW20
R140
D202
D102
R242
R142
D332
D317
R362
D316
D321
LD15
R340
D322
C305
R204
R105
C101
R104
C201
JW83
R214
R113
JW86
R107
R101
JW11
R385
CN2
D324
R369
R150
C342
C162
C343
JW16
C263
C262
R251
JW18
JW19
C229
R243
R239
R143
C129
C130
R356
JW21
JW22
C224
C124
JW45
R360
CN8
D318
D323
C338
R346
JW54
LD17
R114
R207
R305
JW71
D312
JW73
D334
L101
L304
R349
JW70
JW69
JW72
JW74
D311
CN10
D329
R304
R303
D303
D302
R306
CN1
C169
C268
R370
C167
C168
L105
C165
C166
C164
IC305
C264
C266
C265
C268
D336
Q206
R237
R136
L204
L104
L203
R233
C127
C228
R238
R138
C234
C223
L103
R133
JW44
R131
R231
S11
JW56
JW55
C128
R236
C227
R137
R234
R139
C134
C123
C322
C113
C121
JW43
R132
C221
R232
JW58
JW59
JW60
JW61
JW62
JW57
JW63
JW64
JW65
JW66
JW67
JW68
JW75
JW76
JW77
C303
R115
D335
C346
C347
JW8
JW7
JW9
D340
Q108
R216
R235
Q205
Q105
R134
R135
R116
C105
C125
R123
C323
R122
IC308
JW40
JW41
JW42
C213
C110
C210
CN9
R222
C211
L102
C118
R330
R329
Q305
R327
C319
R326
C318
JW78
D308
D309
R219
R328
R119
R215
IC302
C217
IC304
C216
C329
C116
C212
C214
R223
R225
R224
C117
R218
C107
C218
R118
L202
C317
C270
C170
R152
R252
J6
LD4
LD5
LD6
LD26
C353
Q322
D342
R108
C208
C222
C328
C103
JW23
R336
C325
R335
R124
R125
R226
C360
R383
Q321
R377
D330
D331
R350
R375
D333
C350
R382
L205
C267
R374
C349
R384
R380
R381
D25
C203
R211
R342
C324
JW24
R333
C316
C215
SFR201
SFR202
JW91
R347
R338
C327
C326
R339
R229
C207
R230
R129
C219
R130
C314
C351
JW5
JW4
JW88
R373
Q313
Q320
C352
C362
Q202
Q102
R212
R209
R109
R111
R363
D310
D320
JW37
JW38
JW39
R126
Q204
R228
SFR102
SFR101
Q203
C120
C232
JW90
C220
Q301
R307
R322
C119
C306
R310
LD19
R376
JW3
JW2
C341
Q314
JW25
C348
L303
R210
R241
R141
R112
JW32
JW33
CN6
SFR203
R334
R128
Q104
R127
Q103
R227
C132
TP10
C310
R308
R319
JW89
Q304
R345
R311
JW1
C336
C335
L301
Q308
R399
C337
JW26
D341
JW27
JW28
JW29
JW30
JW31
R337
Q306
JW35
SFR103
L305
R317
R318
R323
Q302
Q303
R314
R316
R315
C311
C312
C313
R321
LD15
D328
D307
R344
R348
D327
IC301
D306
R352
L302
R353
C332
C222
C112
SFR104
SFR204
C334
C104
C204
Q311
Q312
R359
JW36
R358
J5
C309
R320
R202
R203
R103
R102
C331
CN7
Q307
S12
C333
R350
J4
J3
J2
J1
R343
D305
D338
D326
R372
R309
D304

SCHEMATIC DIAGRAM (MAIN) U,H,E,K,Z

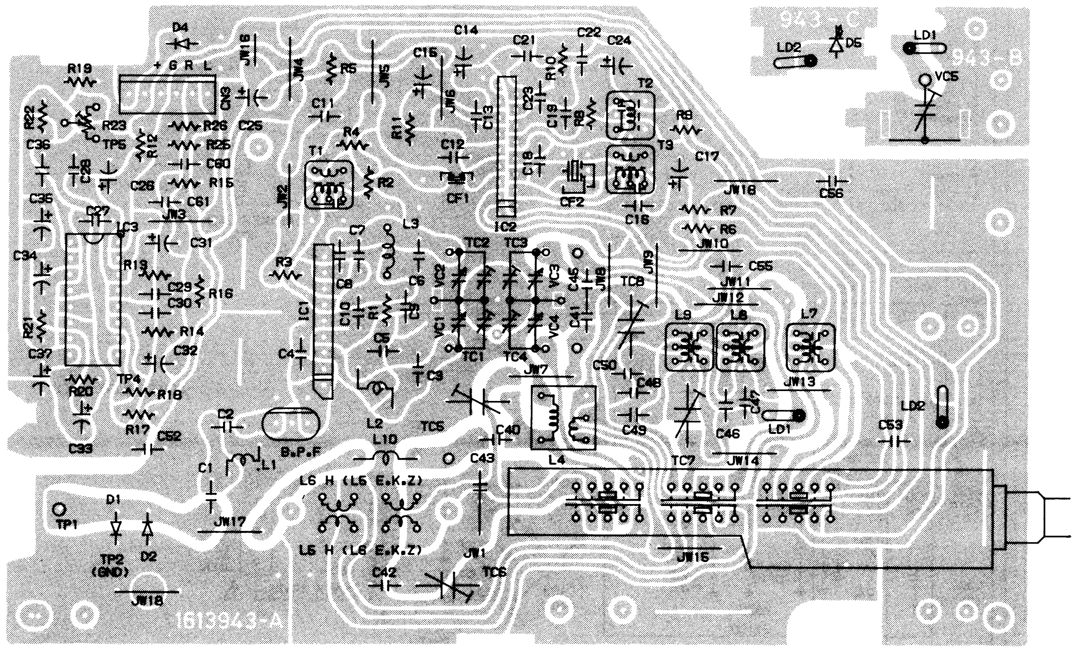


TO TUNER
ST/MONO
H.S.D/FM MONO
RADIO SW
AM+B
+B
GND
R
L
AUX
CD
E, K, Z ONLY
J5 MIC JACK
L304 U, H ONLY
PLAY HEAD
IC303 TA7784P PLAY AMP.
R/P HEAD
R/P SW
CD CONTROL
ERASE HEAD
L302
S12 BEAT CUT SW
TAPE SW
CD SW
TAPE SELECT SW
IC301 BA6124 LED METER DRIVE
IC302 BA3312 REC.AMP.
TAPE SW.
IC304 CXA1102 DOLBY
DOLBY IND.
DUBBING SW
DUBBING IND.
OPERATION
S6-3 DUBBING SW.
S9-1 DOLBY SW
S15 R/P DECK PLAY SW
S14 R/P DECK MOTOR SW
S13 PLAY DECK MOTOR SW
MOTOR
H.S.D. SW
S7-2
IC101 BA3812L G.EQ.
IC201 BA3812L G.EQ.
GRAPHIC EQUALIZER PCB
VR7-1 VOLUME LCH
VR7-2 RCH
VOLUME
BALANCE
J3 L LINE R OUT
J4
L305 U H ONLY
IC305 LA4500 POWER
SPEAKER JACK PCB LEFT
SPEAKER JACK PCB RIGHT
SP102
SP101 3.2OHM
SP201 3.2OHM
SP202
HEADPHONE PCB
J6 H.P. JACK
J7 SP. JACK
J8 SP. JACK
S10-1 POWER SW.
S10-2
POWER SUPPLY PCB
DC 12V
S16 VOLTAGE SELECTOR
240V
120V
J9 AC JACK
T601 POWER TRANS
E, K, Z ONLY
D401-404 RL202 X 4
C401-404 0.022 X 4

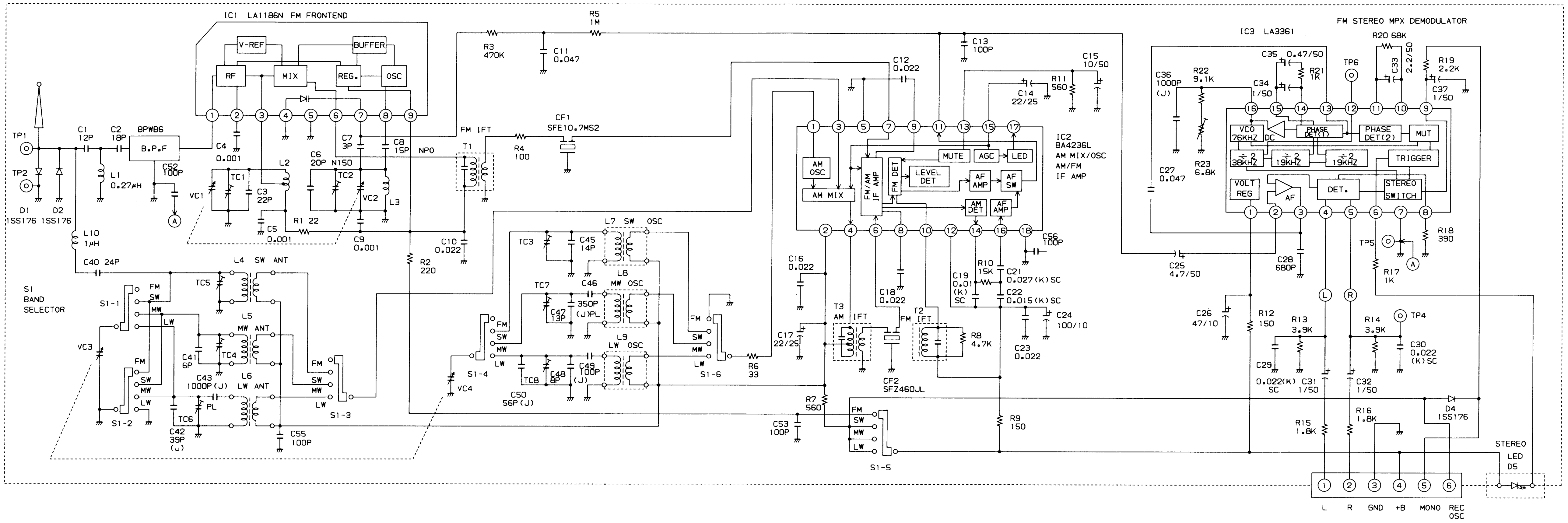
SCHEMATIC DIAGRAM (TUNER) H Model


IC1 LA1186N FM FRONTEND
V-REF
BUFFER
RF
MIX
REG.
OSC
R5 1M
R3 470K
C11 0.047
C13 100P
C12 0.022
C15 10/50
R11 560
C14 22/25
IC2 BA4236L AM MIX/OSC AM/FM IF AMP
AM OSC
AM MIX
FM/AM IF AMP
FM DET
LEVEL DET
MUTE
AGC
LED
AF AMP
AF SW
AM DET
IC3 LA3361
FM STEREO MPX DEMODULATOR
R20 68K
C35 0.47/50
R21 1K
TP6
C33 2.2/50
R19 2.2K
C37 1/50
C36 1000P (J)
R22 9.1K
C34 1/50
VCO 76KHZ
DC
PHASE DET(1)
PHASE DET(2)
MUT
÷2 38KHZ
÷2 19KHZ
÷2 19KHZ
TRIGGER
C27 0.047
R23 6.8K
VOLT REG
AF
DET.
STEREO SWITCH
R18 390
TP5
R17 1K
TP1
TP2
C1 12P
C2 18P
BPWB6
B.P.F
C52 100P
L1 0.27μH
D1 1SS176
D2 1SS176
L10 1μH
C40 18P
C4 0.001
VC1
TC1
C3 20P
L2
C6 18P
TC2
C7 3P
C8 20P
VC2
L3
R1 22
C5 0.001
C9 0.001
FM IFT
T1
R4 100
CF1 SFE10.7MS2
C10 0.022
R2 220
S1 BAND SELECTOR
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
VC3
L4 SW2 ANT
TC5
L5 SW1 ANT
TC4
C41 2P
L6 MW ANT
TC6
C42 8P
C51 100P
FINE TUN.(1.8P)
VC5
VC4
TC3
C45
L7 SW2 OSC
TC7
C46 SW1 OSC
L8
C47
1500P (J)PL
L9 MW OSC
TC8
C48 5P
C49 350P (J)PL
R6 33
C16 0.022
C17 22/25
T3 AM IFT
CF2 SFZ460JL
C18 0.022
T2 FM IFT
R8 4.7K
C19 0.01 (K) SC
R10 10K
C21 0.027(K)SC
C22 0.012(K)SC
C24 100/10
C23 0.022
R7 560
C53 100P
R9 150
C25 4.7/50
C28 680P
C26 47/10
R12 150
R13 3.3K
R14 3.3K
TP4
C30 0.022 (K)SC
C29 0.022(K) SC
C31 1/50
C32 1/50
R15 3.3K
R16 3.3K
D4 1SS176
STEREO LED D5
L R GND +B MONO REC OSC

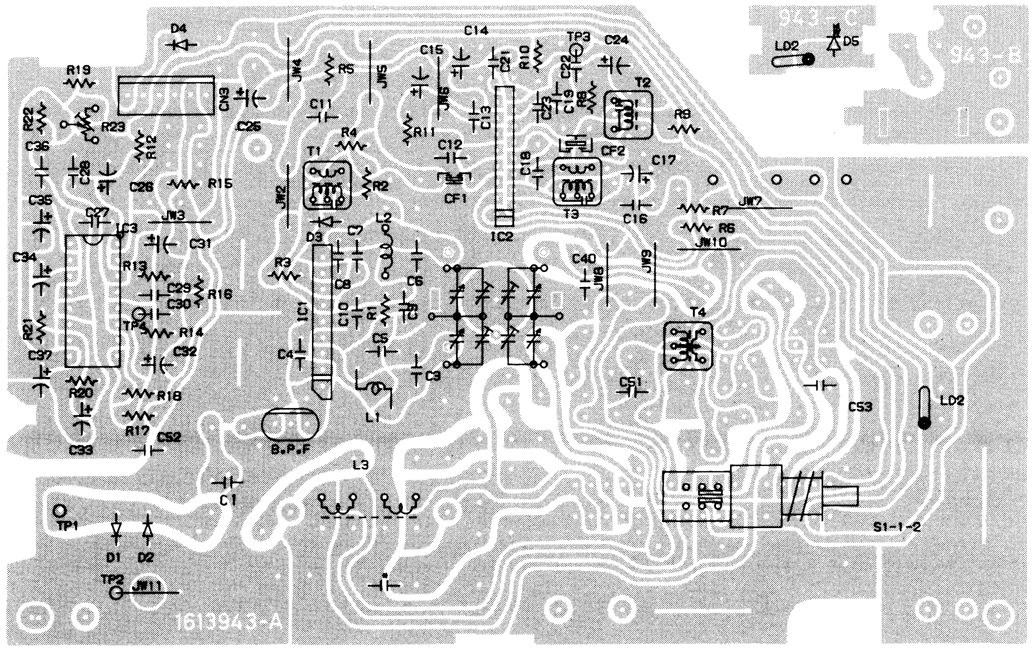
TUNER P.C.B. H


1613943-A
943-C
943-B
LD1
LD2
D5
VC5
D4
TP1
TP2 (GND)
D1
D2
B.P.F
IC1
IC2
IC3
T1
T2
T3
CF1
CF2
L6 H (L5 E.K.Z)
L5 H (L6 E.K.Z)
L7
L8
L9
TC1
TC2
TC3
TC4
TC5
TC6
TC7
TC8

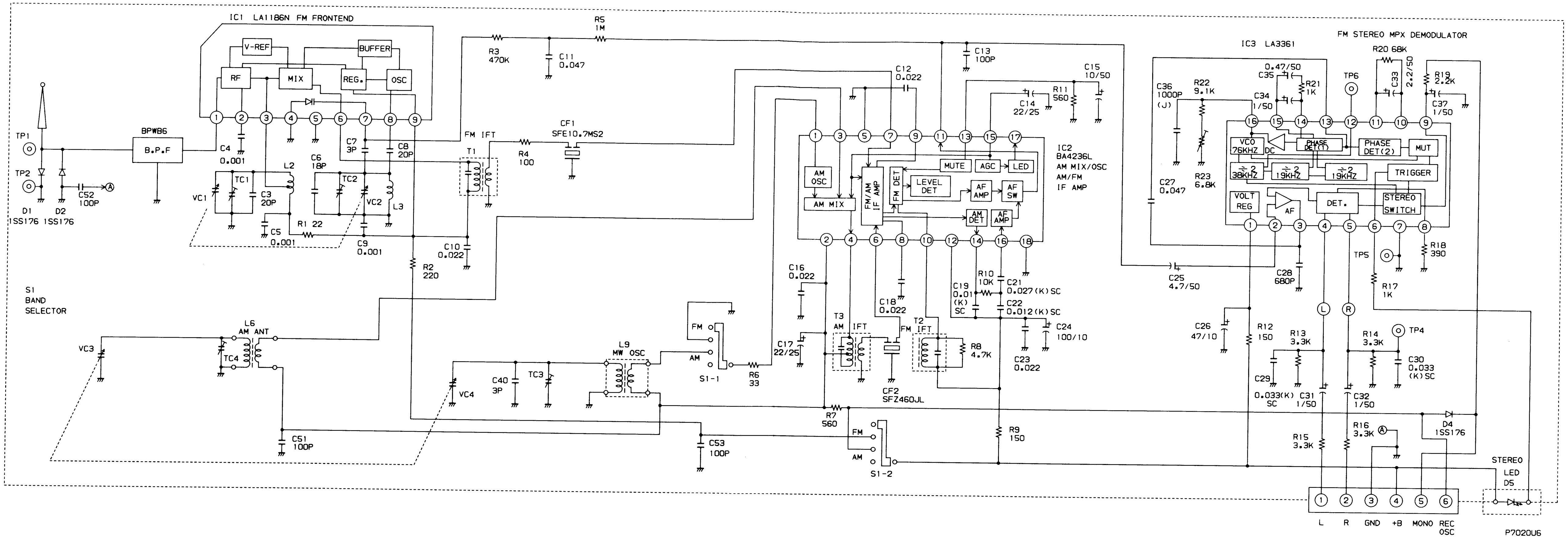
SCHEMATIC DIAGRAM (TUNER) E,K,Z Models


IC1 LA1186N FM FRONTEND
V-REF
BUFFER
RF
MIX
REG.
OSC
R5 1M
R3 470K
C11 0.047
CF1 SFE10.7MS2
FM IFT
T1
R4 100
TP1
TP2
C1 12P
C2 18P
BPWB6
B.P.F
C52 100P
L1 0.27μH
D1 D2 1SS176 1SS176
L10 1μH
C4 0.001
C7 3P
C8 15P NPO
C6 20P N150
L2
TC1
TC2
C3 22P
VC1
VC2
L3
R1 22
C5 0.001
C9 0.001
C10 0.022
R2 220
C40 24P
S1 BAND SELECTOR
S1-1
S1-2
S1-3
S1-4
S1-5
S1-6
VC3
VC4
L4 SW ANT
L5 MW ANT
L6 LW ANT
TC4
TC5
TC6
PL
C41 6P
C43 1000P(J)
C42 39P (J)
C55 100P
TC3
TC7
TC8
L7 SW OSC
L8 MW OSC
L9 LW OSC
C45 14P
C46 350P (J)PL
C47 13P
C48 8P
C49 100P (J)
C50 56P(J)
R6 33
FM SW MW LW
C12 0.022
C13 100P
C14 22/25
C15 10/50
R11 560
IC2 BA4236L AM MIX/OSC AM/FM IF AMP
AM OSC
AM MIX
FM/AM IF AMP
FM DET
LEVEL DET
MUTE
AGC
LED
AF AMP
AF SW
AM DET
C16 0.022
C17 22/25
C18 0.022
C19 0.01 (K) SC
R10 15K
C21 0.027(K)SC
C22 0.015(K)SC
C24 100/10
C23 0.022
C56 100P
T3 AM IFT
T2 FM IFT
CF2 SFZ460JL
R8 4.7K
R7 560
C53 100P
R9 150
IC3 LA3361
FM STEREO MPX DEMODULATOR
R20 68K
C35 0.47/50
R21 1K
TP6
C33 2.2/50
R19 2.2K
C37 1/50
C36 1000P (J)
R22 9.1K
C34 1/50
VCO 76KHZ
DC
PHASE DET(1)
PHASE DET(2)
MUT
÷2 38KHZ
÷2 19KHZ
÷2 19KHZ
TRIGGER
VOLT REG
AF
DET.
STEREO SWITCH
R23 6.8K
C27 0.047
C28 680P
TP5
R18 390
R17 1K
C25 4.7/50
C26 47/10
R12 150
R13 3.9K
R14 3.9K
TP4
C29 0.022(K) SC
C31 1/50
C32 1/50
C30 0.022 (K)SC
R15 1.8K
R16 1.8K
D4 1SS176
STEREO LED D5
L R GND +B MONO REC OSC

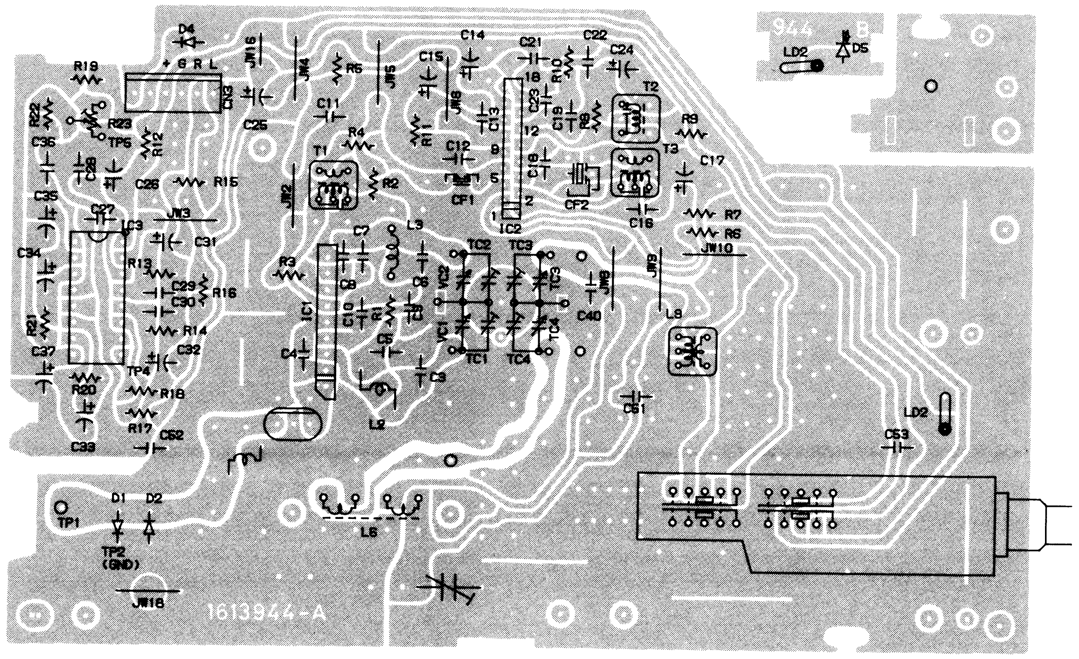
TUNER P.C.B. E,K,Z


D4
R19
R22
R23
R12
C36
C35
C34
R21
C37
C33
R20
C28
C26
R15
JW3
IC3
C31
R13
C29
C30
R16
TP5
R14
C32
R18
R17
C52
C1
TP1
D1
D2
TP2
JW11
1613943-A
C14
C15
C11
R5
JW4
JW5
JW6
C21
C13
R10
TP3
C24
C22
C19
R8
T2
R4
R11
C12
CF1
IC2
C18
C23
T1
JW2
R2
D3
C7
L2
R3
IC1
C10
R1
C9
C5
C6
C3
C4
L1
B.P.F
L3
CF2
T3
C17
C16
R9
R7
JW7
R6
JW10
C40
JW8
JW9
T4
C51
C53
LD2
D5
S1-1-2
943-C
943-B

SCHEMATIC DIAGRAM (TUNER) U Model


IC1 LA1186N FM FRONTEND
V-REF
BUFFER
RF
MIX
REG.
OSC
BPW86
B.P.F
TP1
TP2
D1 1SS176
D2 1SS176
C52 100P
C4 0.001
TC1
VC1
C3 20P
L2
C5 0.001
C6 18P
TC2
VC2
L3
R1 22
C7 3P
C8 20P
C9 0.001
FM IFT
T1
R4 100
CF1 SFE10.7MS2
R3 470K
C11 0.047
R5 1M
C10 0.022
R2 220
S1 BAND SELECTOR
VC3
L6 AM ANT
TC4
C51 100P
C40 3P
TC3
VC4
L9 MW OSC
FM
AM
S1-1
R6 33
C17 22/25
C16 0.022
R7 560
C53 100P
S1-2
C12 0.022
C13 100P
C15 10/50
R11 560
C14 22/25
IC2 BA4236L AM MIX/OSC AM/FM IF AMP
AM OSC
AM MIX
FM/AM IF AMP
FM DET
LEVEL DET
MUTE
AGC
LED
AF AMP
AF SW
AM DET
T3 AM IFT
C18 0.022
CF2 SFZ460JL
T2 FM IFT
R8 4.7K
C19 0.01 (K) SC
R10 10K
C21 0.027(K)SC
C22 0.012(K)SC
C24 100/10
C23 0.022
R9 150
IC3 LA3361
FM STEREO MPX DEMODULATOR
R20 68K
C36 1000P (J)
R22 9.1K
C35 0.47/50
R21 1K
C34 1/50
TP6
C33 2.2/50
R19 2.2K
C37 1/50
VCO 76KHZ
DC
PHASE DET(1)
PHASE DET(2)
MUT
÷2 38KHZ
÷2 19KHZ
÷2 19KHZ
TRIGGER
C27 0.047
R23 6.8K
VOLT REG
AF
DET.
STEREO SWITCH
C25 4.7/50
C28 680P
TP5
R18 390
R17 1K
C26 47/10
R12 150
R13 3.3K
R14 3.3K
TP4
C30 0.033 (K)SC
C29 0.033(K) SC
C31 1/50
C32 1/50
R15 3.3K
R16 3.3K
D4 1SS176
STEREO LED D5
L R GND +B MONO REC OSC
P7020U6

TUNER P.C.B U


D4
R19
+ B R L
JW15
JW14
R5
JW5
C15
C14
C21
C22
C24
R22
R23
TP6
C36
C28
C26
R15
R12
C25
C11
R4
T1
R3
C12
C13
C23
CF1
CF2
T2
T3
C17
R9
R7
R6
JW10
C16
C35
C27
JW3
C31
C34
R13
C29
C30
R16
R14
C32
C37
TP4
R20
R18
R17
C52
C33
IC3
IC1
IC2
C7
L3
TC2
TC3
TC1
TC4
C40
L9
C51
C9
C8
C5
C4
L2
TP1
D1
D2
TP2 (GND)
JW16
L6
944
LD2
D5
C53
1613944-A

ALIGNMENT OF CD SECTION

1. Tracking offset
   1) Turn the unit off and connect Oscilloscope to TP1 and TP2, then short the circuit between Pin 40 and Pin 41 of IC601.
   2) Turn the unit on and open the circuit between Pin 40 and Pin 41 of IC601.
   3) Adjust VR501 until the center line of wave form becomes equal at OV line (See Fig. 6).
2. Focus offset (on the STOP mode)
   1) Use Oscilloscope (or voltmeter) and connect it between FE0 terminal (TP3).
   2) Adjust VR504 until Oscilloscope (or voltmeter) reading becomes 50mV (See Figure 7).
3. Focus balance
   1) Connect Oscilloscope RF1 terminal (Pin 11 of IC501: TP4).
   2) Adjust VR503 until a clear trace of waveform pattern appear on the Oscilloscope. (See Figure 8)
4. RF gain
   1) Connect Oscilloscope to RF1 terminal (Pin 11 of IC501: TP4).
   2) Adjust VR505 until Oscilloscope shows 1.3V P-P (See Figure 8).

TEST EQUIPMENT CONNECTIONS (CD Section)

Fig. 6 Tracking Offset

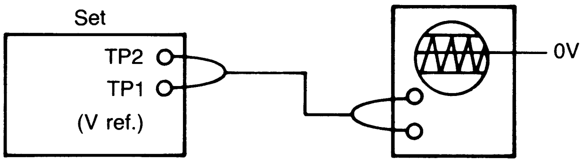

Score
Set
TP2
TP1
(V ref.)
0V

Fig. 7 Focus Offset

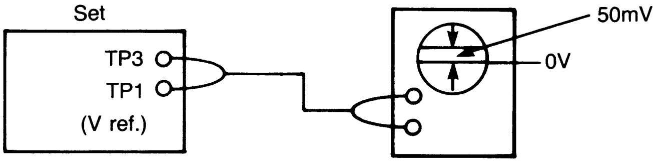
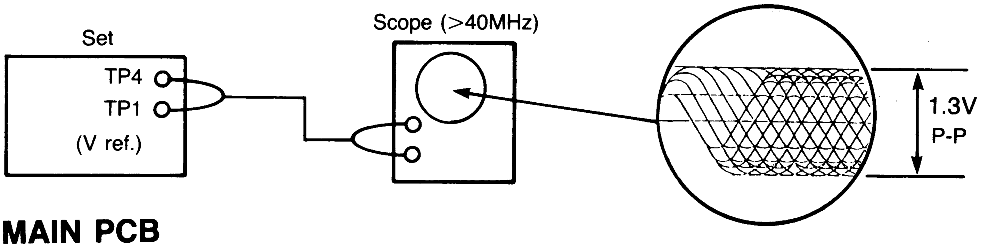
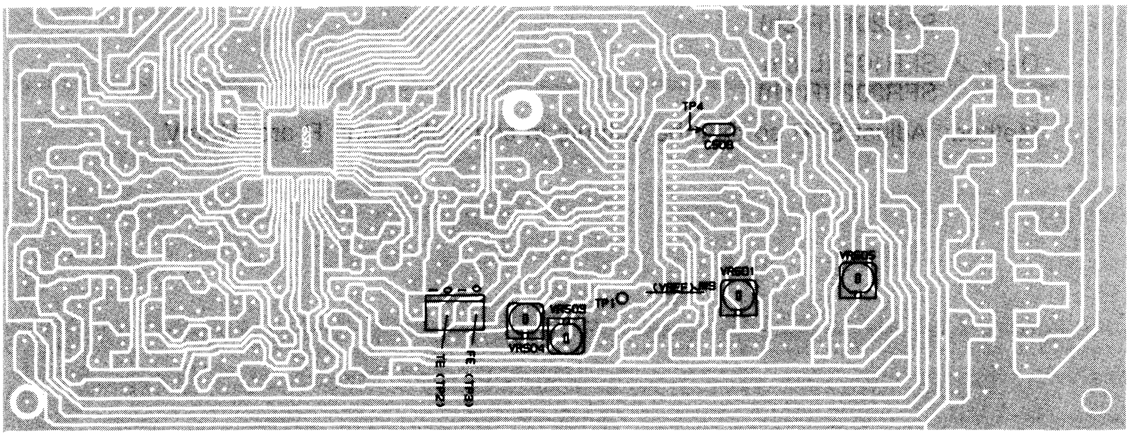

Set
TP3
TP1
(V ref.)
50mV
0V

Fig. 8 Focus Balance/RF Gain


Set
TP4
TP1
(V ref.)
Scope (>40MHz)
1.3V
P-P

CD MAIN PCB


TP4
C508
TP1
VR501
VR505
VR503
VR504
TE (TP2)
FE (TP3)

ALIGNMENT (TAPE DECK SECTION)

①Azimuth Adjustment

Settings:
- Test tape: TTA-317E
- Adjustment location: Azimuth adjustment Screw
  Method: Adjust in the PLAY mode.

②Tape Speed Adjustment

Settings:

Item	High Speed		Normal Speed	
	Deck 2	Deck 1	Deck 1	Deck 2
Procedure				
Test tape		TTA-111S	TTA-111S	TTA-111S
	REC Button Dubbing Button High Speed Button	Play Button	Play Button	Play Button
		SFR451	Comfirm only	SFR452

Methods:

High-Speed adjustment

1. Deck 2: Push Record Button
   Set Dubbing position
   Set High Speed position
2. Deck 1: Connect Frequency Counter to speaker out (3.2 ohm loaded)
   Load Test Tape TTA-IIIS
   Press Play button and adjust SFR451 so that the frequency is 6000Hz.

Normal Speed adjustment

3. Deck 2: Connect Frequency Counter to speaker out (3.2 ohm loaded)
   Load Test Tape TTA-IIIS
   Press Play button and adjust SFR452 so that the frequency is 3000Hz.
4. Deck 1: Connect Frequency Counter to speaker out (3.2 ohm loaded)
   Load Test Tape TTA-IIIS.
   Press Play button and confirm
   Tape speed it is 3000Hz.

③Dolby Output Adjustment

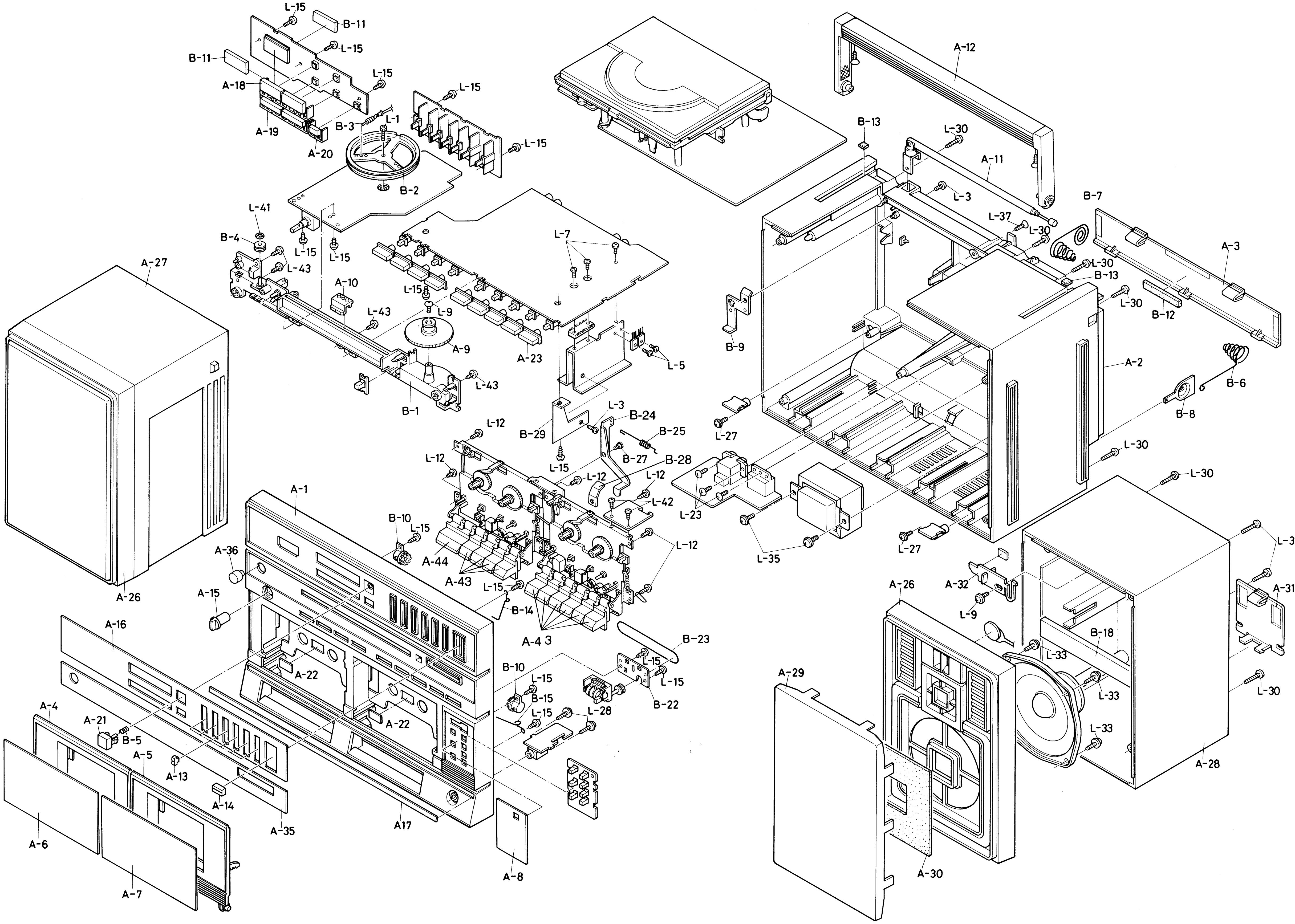
Settings:
- Test tape: TTA-161
- Test points: TP10 G and R (R ch)
  TP10 G and L (L ch)

Adjustment location:
Deck 1: SFR101 (L ch)
SFR201 (R ch)

Deck 2: SFR102 (L ch)
SFR202 (R ch)

Method: Adjust SFR so that the outputs in channels L and R are 245mV.

EXPLODED VIEW 1

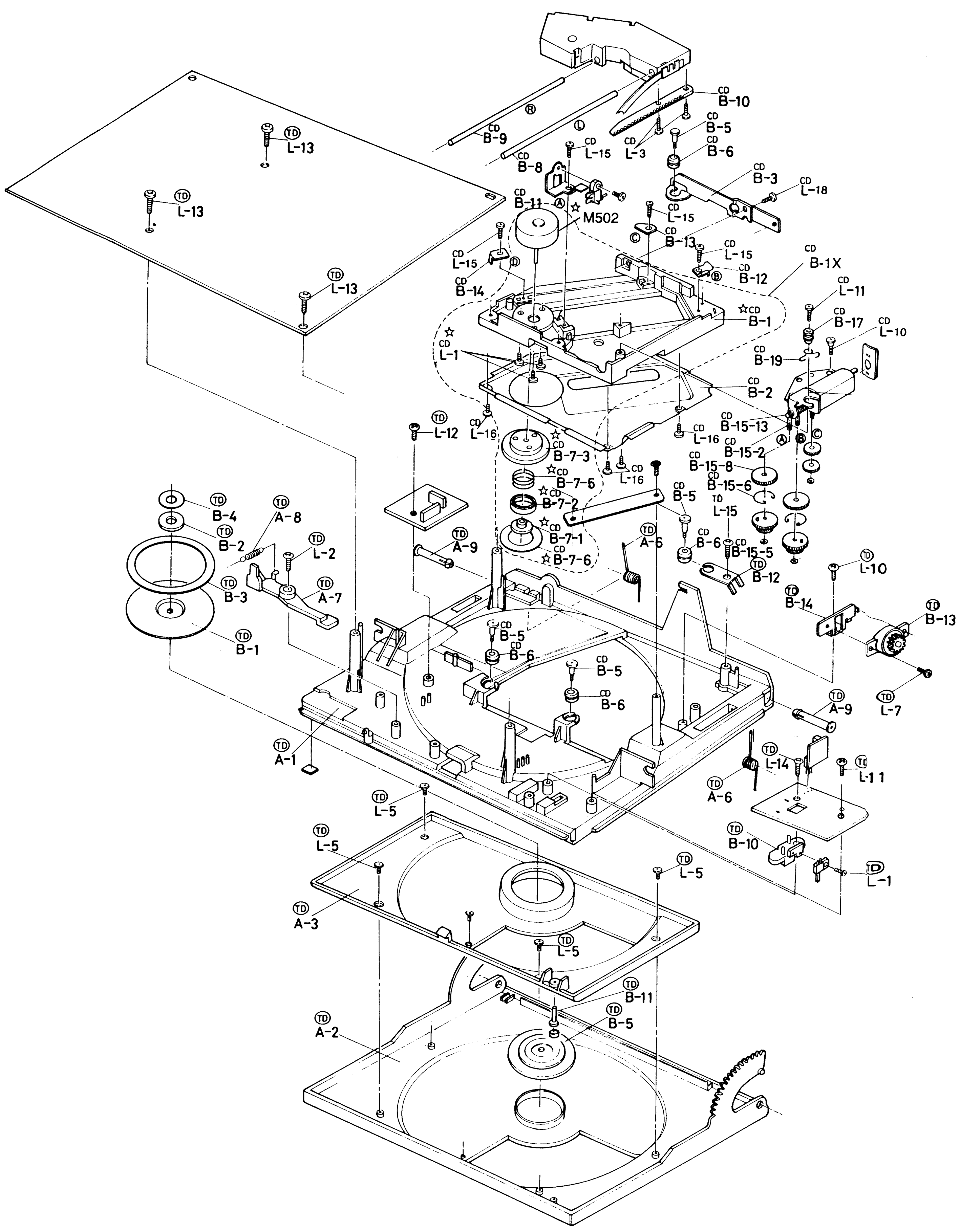

L-15
B-11
L-15
B-11
L-15
A-18
A-19
A-20
B-3
L-1
L-15
L-15
B-2
L-41
B-4
L-15
L-15
L-43
A-10
L-15
L-9
L-43
A-9
L-7
A-23
L-5
L-43
B-1
A-27
A-26
L-12
L-3
B-24
B-29
B-25
L-12
B-27
B-28
L-15
L-12
L-12
L-42
A-1
B-10
L-15
A-44
A-43
A-36
L-15
A-15
B-14
L-12
A-4 3
A-16
A-22
B-23
B-10
L-15
B-15
L-15
L-28
L-15
L-15
B-22
A-22
A-4
A-21
B-5
A-5
A-13
A-14
A-6
A-7
A-35
A17
A-8
A-12
B-13
L-30
A-11
L-3
B-7
L-37
L-30
L-30
B-13
A-3
L-30
B-12
B-9
A-2
B-6
B-8
L-27
L-23
L-30
L-30
L-35
L-27
L-30
A-31
A-32
L-9
A-26
B-18
L-33
L-33
L-33
A-29
L-30
A-28
A-30

MECHANICAL PARTS LIST

Please order the all parts for this model to Japan

A-1	☆	S2-1CF-471-X00	Front Panel Ass'y (H Model Only)
	☆	S2-1CF-388-X00	Front Panel Ass'y (U Model Only)
	☆	S2-1CF-416-X00	Front Panel Ass'y (E, K, Z, Model Only)
			Consists of Following
			A-8 Indicator Window
			A-16 Control Window
			A-22 Tape Mirror
			A-35 Dial Window (H Model Only)
			A-35 Dial Window (U Model Only)
			A-35 Dial Window (E, K, Z Model Only)
A-2	☆	S2-1CF-383-X00	Rear Cabinet Ass'y
			Consists of following
		S2-6BF-002-000	B-6 Battery Terminal (−)
		S2-6BF-003-000	B-7 Battery Terminal (+, −)
		S2-3W2-406-000	B-8 Battery Terminal (+, −) Small
A-3		S2-1BF-002-X00	Battery LID Ass'y
			Consists of Following
	☆	S2-4WF-346-000	B-12 Battery Cushion
A-4		S2-1CF-384-X00	Cassette Door Ass'y (1)
			Consists of Following
			A-6 Cassette Window (1)
A-5		S2-1CF-385-X00	Cassette Door Ass'y (2)
			Consists of Following
			A-7 Cassette Window (2)
A-9		S2-1N1-746-000	Tuning Knob
A-10	☆	S2-1PF-127-000	Dial Pointer
A-11		S2-7AO-131-000	ROD Antenna
A-12	☆	S2-7HF-009-000	Handle Ass'y
A-13		S2-1N1-992-000	Volume Knob
A-14		S2-1N1-942-000	Volume Knob
A-15		S2-1N1-944-000	Band Selector Knob
A-17		S2-4DF-591-000	Cassette Control Window
A-18		S2-1N1-989-000	CD Button (Play)
A-19		S2-1N1-900-000	CD Button (FR)
A-20		S2-1N1-951-000	Repeat Button
A-21		S2-1N1-952-000	Door Open Button
A-23		S2-1N1-958-000	Function Button
A-26	☆	S2-1CF-387-X00	Speaker Front Ass'y
			Consists of following
			A-29 Speaker Grille
			A-30 Speaker Cover
A-27	☆	S2-1CF-354-X00	Speaker Rear Ass'y Left
			Consists of following
			A-31 Speaker Cord Stopper
A-28	☆	S2-1CF-353-X00	Speaker Rear Ass'y Right
			Consists of following
			A-31 Speaker Cord Stopper
A-32		S2-1N1-877-000	Speaker Stopper
A-36		S2-1N1-943-000	Fine Tuning Knob (H Model Only)
A-37	☆	S2-4LF-576-000	Type Label (H Model Only)
	☆	S2-4LF-573-000	Type Label (U Model Only)
	☆	S2-4LF-574-000	Type Label (E Model Only)
	☆	S2-4LF-575-000	Type Label (K Model Only)
	☆	S2-4LF-610-000	Type Label (Z Model Only)
A-38	☆	S2-4LF-567-000	Caution Label
A-39	☆	S2-4LF-259-000	Danger Label
A-43		S2-1N1-953-000	Cassette Button
A-44		S2-1N1-954-000	Play Button
B-1	☆	S2-1SF-083-000	Chassis
B-2	☆	S2-1PF-123-000	Dial Drum
B-3	☆	S2-6WD-263-000	Drum Spring
B-4	☆	S2-180-078-000	Tuning Pulley
B-5	☆	S2-6WF-274-000	Open Button Spring
B-9	☆	S2-3YF-273-000	Antenna Terminal
B-10	☆	S2-7WF-090-000	Gear Damper
B-11	☆	S2-4WF-358-000	LCD Cushion
B-13	☆	S2-4WI-790-000	Handle Cushion
B-14	☆	S2-6WF-277-000	Door Spring L
B-15	☆	S2-6WF-270-000	Door Spring R
B-22	☆	S2-3YF-275-000	Counter Holder
B-23		S2-1VF-013-000	Counter Belt
B-24	☆	S2-3YF-271-000	Record Lever
B-25	☆	S2-6WF-287-000	Record Joint Bar
B-26	☆	S2-3YF-180-000	Holder, Lever Shaft
B-27	☆	S2-6WF-2890999	Screw,Collar
B-28		S2-3YF-308-000	Rec Plate
B-29			
L-1	☆	SA-HM3-914-000	Screw, Hexagonal Head M2.6 × 14
L-3	☆	SS-BM3-306-000	Screw, Bind Head M3 × 6
L-5	☆	SS-PM3-908-000	Screw, Pan Head M2.6 × 8
L-7	☆	SG-PMC-308-000	Screw, C-Tight Pan Head M3 × 8
L-9	☆	SG-ZMC-306-000	Screw, P-Tight Brazier Head M3 × 6
L-12	☆	SG-LRP-308-000	Screw, P-Tight Brazier Head M3 × 8
L-15	☆	SG-LMP-308-000	Screw, P-Tight Brazier Head M3 × 8
L-17	☆	SG-ZMP-310-000	Screw, P-Tight Brazier Head M3 × 10
L-23	☆	SG-LMP 310-000	Screw, P-Tight Brazier Head M3 × 10
L-25	☆	SG-LRP-310-000	Screw, P-Tight Brazier Head M3 × 10
L-26	☆	SG-LMP-310-000	Screw, P-Tight Brazier head M3 × 12
L-27	☆	SG-ZMP-312-000	Screw, P-Tight Brazier Head M3 × 12
L-30	☆	SG-LMP-320-000	Screw, P-Tight Brazier Head M3 × 20
L-31	☆	SG-LMP-335-000	Screw, P-Tight Brazier Head M3 × 35
L-33	☆	SG-AMP-408-000	Screw, P-Tight Brazier Head M4 × 8
L-35	☆	SG-ZMP-416-000	Screw, P-Tight Brazier Head M4 × 16
L-37	☆	SG-DKP-310-000	Screw, P-Tight Flat Head M3 × 10
L-41	☆	SE-TKO-030-000	CS Ring 3mm Dia.
L-42	☆	SG-PMC-204-000	Screw, C-Tight Pan Head M2 × 4
L-43	☆	SG-LRP-310-000	Screw, P-Tight Head M3 × 10

EXPLODED VIEW 2


CD B-10
CD B-5
CD B-6
CD B-9
CD B-8
CD L-15
CD L-3
TD L-13
TD L-13
TD L-13
CD B-3
CD L-18
CD B-11
M502
CD L-15
CD B-13
CD L-15
CD B-12
CD L-15
CD B-14
CD B-1X
CD L-11
CD B-1
CD B-17
CD L-10
CD L-1
CD B-19
CD B-2
TD L-12
CD L-16
CD L-16
CD B-15-13
CD B-15-2
CD B-7-3
CD B-15-8
CD L-16
CD B-7-6
CD B-15-6
CD B-7-2
CD B-5
TD L-15
CD B-7-1
CD B-6
CD B-15-5
CD B-7-6
TD B-12
TD B-4
TD A-8
TD B-2
TD L-2
TD A-9
TD A-6
TD B-3
TD A-7
TD B-1
TD L-10
TD B-14
TD B-13
CD B-5
CD B-6
CD B-5
CD B-6
TD A-9
TD L-7
TD A-1
TD L-14
TD L-11
TD A-6
TD L-5
TD L-5
TD B-10
TD L-5
TD L-1
TD A-3
TD L-5
TD B-11
TD A-2
TD B-5

MECHANICAL PARTS LIST

Please order the all parts
for this model to Japan

TD

A-1	S2-1FF-381-000	CD Base
A-2	S2-1CF-401-000	CD Door

CD

A-3	S2-1DF-304-000	CD Door Window
B-1X	S2-1SF-086-X00	Pick up Chassis W/Motor & T. Table Consists of following
	S2-1SF-086-000	CDB-1 Pick fo Chassis
	S2-7W7-243-000	CDB-7 Turn Table Ass'y
	SS-FKI-703-000	CDL-1 Screw, Pan Head M1.7 × 3
	S1-640-261-000	M502 Motor, Spindle
B-2	S2-3MF-375-000	Pick up Cover
B-3	S2-3YF-283-000	Damper Plate C
B-4	S2-5W8-900-000	Damper Shaft
B-5	S2-1WF-658-000	Damper
B-8	S2-5W8-895-000	Guide Shaft L
B-9	S2-5W8-894-000	Guide Shaft R
B-10	S2-1W8-054-000	Feed Lack
B-11	S2-3X9-271-000	Shaft Holding Plate A
B-12	S2-3X9-272-000	Shaft Holding Plate B
B-13	S2-3X9-273-000	Shaft Holding Plate C
B-14	S2-3X9-274-000	Shaft Holding Plate D
B-15	S2-7WF-098-000	Feed Gear Ass'y
B-16	S2-1W8-056-000	Shaft Holdre
B-17	S2-1W8-055-000	Warm Gear
B-18	S2-5W8-909-000	Collar B
B-19	S2-6W8-016-000	Tension Spring
B-20	S2-4WE-408-000	Pick up Shaft Spacer

TD

B-1	S2-3X9-278-000	Disc Holding Plate
B-2	S2-2WF-005-000	Magnet
B-3	S2-4WF-372-000	Chucking Cushion
B-4	S2-4W9-492-000	Magnet Cover
B-5	S2-1WF-635-000	Chuck Upper Plate
B-6	S2-6WF-270-000	Door Spring
B-7	S2-1WF-632-000	Eject Leverf
B-8	S2-6WF-269-000	Eject Spring
B-9	S2-3WF-636-000	Door Shaft
B-10	S2-1WF-637-000	LD Switch Holdre
B-11	S2-5W8-904-000	Switch Shaft
B-12	S2-3YF-217-000	Floating Plate
B-13	S2-7WF-094-000	Gear Damper A
B-14	S2-3YF-254-000	Damper Holder
B-15	S2-4WF-365-000	CD Door Cushion
B-16	S2-4WE-401-000	Anti Vibration Cushion
B-17	S2-3WF-082-000	PCB Holder

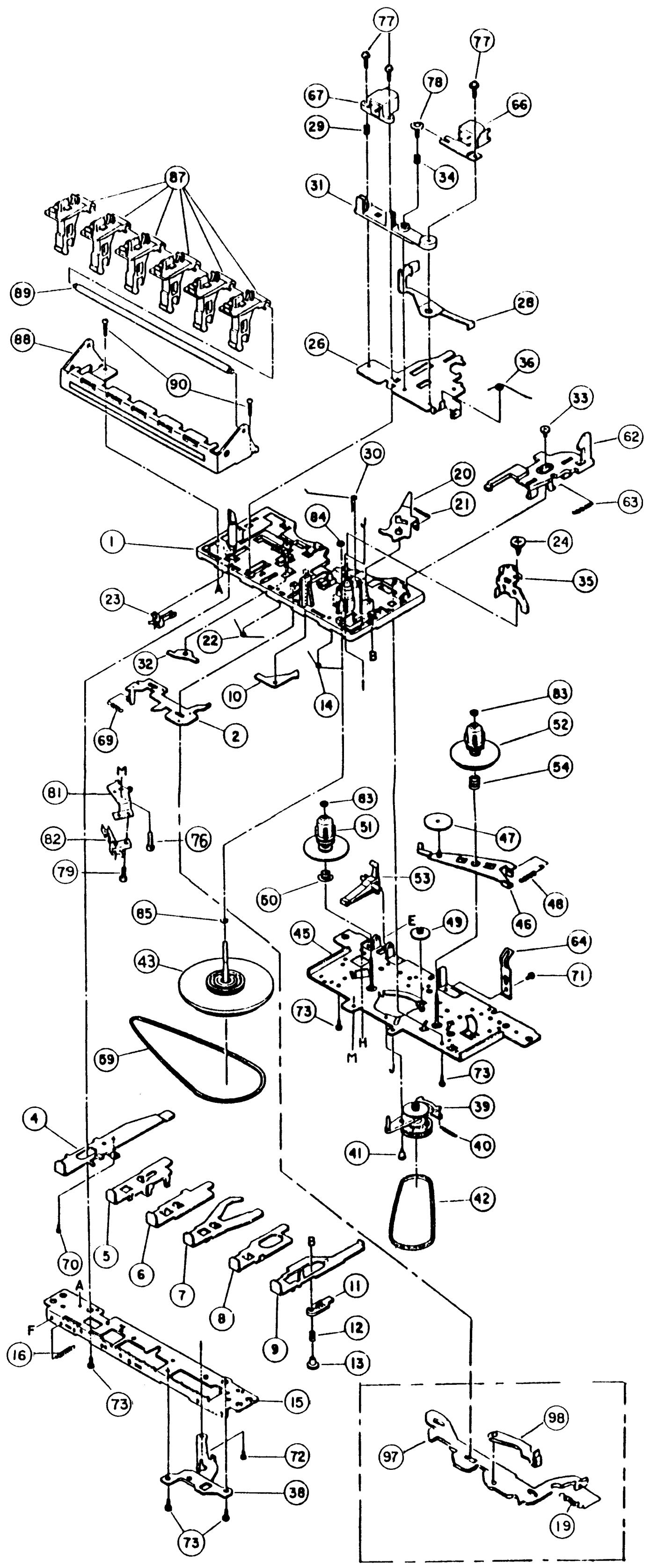
CD

L-1	SS-FKI-703-000	Screw, Pan Head M1.7 × 3
L-2	SS-PKI-205-000	Screw, Pan Head M2 × 5
L-3	SS-FKI-204-000	Screw, Pan Head M2 × 4
L-6	SC-PM3-203-000	Screw, Pan Head M2 × 3
L-10	SG-AMB-704-000	Screw, Collared M1.7 × 4
L-15	SG-FKB-705-000	Screw, Pan Head M1.7 × 5
L-16	SG-FKB-703-000	Screw, Pan Head M1.7 × 3
L-17	SG-PKB-707-000	Screw, Pan Head M1.7 × 7
L-18	SG-PKB-204-000	Screw, Pan Head M2 × 4

TD

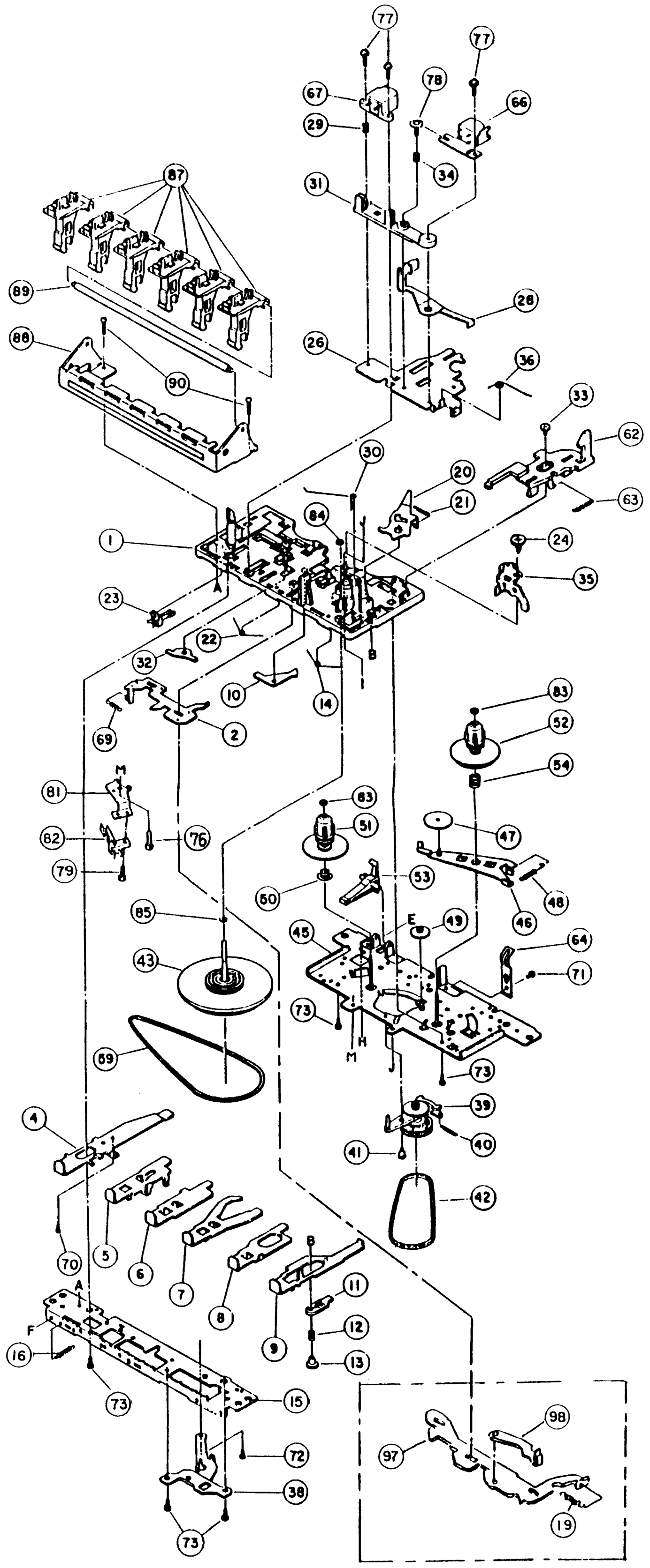
L-1	SG-PKB-206-000	Screw, B-Tight Pan Head M2 × 6
L-2	SD-CM1-908-000	Screw, Tapping Pan Head M26 × 8
L-5	SG-AKB-203-000	Screw, B-Tight Flat Head M2 × 3
L-7	SG-PMC-204-000	Screw, C-Tight Pan Head M2 × 4
L-11~15	SG-LMP-308-000	Screw, Tapping Brazier Head M3 × 8
L-10	SG-LMP-906-000	Screw, P-Tight Brazier Head M2.6 × 6

EXPLODED VIEW 3 (Deck 2)



Ref. No	Part No.	Description
1	★S1-821-016-000	MAIN BASE ASS'Y
2	★S1-821-010-500	SWITCH PLATE
3	★S1-821-019-1A0	PUSH BUTTON ACTUATOR
4	★S1-821-012-8A0	REC BUTTON LEVER
5	★S1-821-012-900	PLAY BUTTON LEVER
6	★S1-821-013-000	RWD BUTTON LEVER
7	★S1-821-013-100	FF BUTTON LEVER
8	★S1-821-013-200	STOP BUTTON LEVER
9	★S1-821-015-030	PAUSE BUTTON LEVER ASS'Y
10	★S1-821-016-800	RWD LEVER
11	★S1-821-011-310	PAUSE LEVER
12	★S1-821-011-600	PAUSE LEVER SPRING
13	★S1-821-013-400	PAUSE STOPPERTR
14	★S1-821-012-300	BUTTON LEVER SPRING (C)
15	★S1-821-391-600	SUB PLATE
16	★S1-821-010-700	BUTTON LEVER SPRING (A)
17	★S1-821-015-000	PLAY BUTTON LEVER SPRING (S)
18	★S1-821-011-590	E KICK LEVER
19	★S1-821-012-200	ACTUATOR SPRING
20	★S1-821-016-200	AUTO LEVER
21	★S1-821-012-100	ATUO LEVER SPRING
22	★S1-821-011-300	BUTTON LEVER SPRING (B)
23	★SL-SA1-115-R00	LEAF SWITCH
24	★S6-405-012-300	M.S SCREW
25	★S1-821-031-000	HEAD PANEL
26	S1-829-030-400	HEAD PANEL
27	S1-821-030-200	HEAD BASE
28	★S1-821-033-020	SENSING PLATE ASS'Y
29	★S1-821-030-800	E.H. SPRING
30	★S1-821-031-200	HEAD PANEL SPRING (S)
31	★S1-829-030-200	HEAD BASE
32	★S1-829-011-000	P.R. STOPPER
33	★S1-821-130-500	P.M.E. SCREW
34	★S1-821-030-700	AZIMUTH SPRING
35	★S1-821-043-090	PINCH ROLLER ARM ASS'Y
36	★S1-821-030-700	PINCH ROLLER SPRING
37	★S1-821-391-200	M.S SCREW
38	★S1-821-391-900	METAL GUIDE
39	★S1-821-073-190	RF PULLEY ARM ASS'Y
40	★S1-821-070-190	RF PULLEY ARM ASS'Y
41	★S1-821-072-100	RF ARM COLLER SCREW
42	★S1-821-070-300	RF BELT
43	★S1-821-093-160	FLY WHEEL ASS'Y
44	★S1-821-093-010	FLY WHEEL ASS'Y
45	★S1-821-105-150	REEL BASE ASS'Y
46	★S1-821-105-120	TAKE UP GEAR PLATE ASS'Y
47	★S1-821-103-400	TAKE UP ROLLER GEAR
48	★S1-821-100-800	T.G. PLATE SPRING
49	★S1-821-107-000	FF GEAR
50	★S1-829-101-000	BACK TENSION SPRING
51	★S1-821-103-090	SUPPLY REEL ASS'Y
52	★S1-821-103-130	TAKE UP REEL ASS'Y
53	★S1-800-020-100	RECORD SAFETY LEVER
54	★S1-821-104-600	BACK TENSION SPRING
55	★S1-821-121-230	DECK BRACKET
56	★S1-820-130-600	MOTOR RUBBER
57	★S1-821-120-200	COLLER SCREW
58	★S1-821-121-430	MOTOR PULLEY
59	★S1-821-122-200	MAIN BELT
60	★S1-821-121-250	ANTI VIBRATION FELT MAT
61	★S1-821-121-270	MAIN BELT
62	★S1-821-130-900	EJECT SLIDE LEVER
63	★S1-821-130-200	EJECT SLIDE LEVER SPRING
64	★S1-829-100-100	PACK SPRING
65	★S1-650-269-000-000	P. HEAD
66	★S1-650-228-000-000	R.P. HEAD-
67	★S1-650-281-000-000	R.P. HEAD-
68	★S1-640-255-000-000	MOTOR
69	★S1-821-013-800	SWITCH ACTUATOR SPRING
70	★S9-076-000-000	TAMS SCREW M2 × 3
71	★S9-170-000-000	C TAPPING SCREW M2 × 3
72	★S9-180-000-000	C TAPPING SCREW M2 × 4
73	★S9-679-000-000	P TAPPING BIND SCREW M2 × 5
74	★S9-002-000-000	⊕ SCREW M2 × 4
75	★S9-004-000-000	SCREW M2 × 6
76	★S9-181-000-000	C TAPPING SCREW M2 × 5
77	★S9-820-000-000	⊕⊖ CAP SCREW M2 × 7
78	★S9-922-000-000	AZIMUTH SCREW
89		
80		
81		
82		
83	★S9-888-000-000	P WASHER CUT 1.2 × 3.0 × 0.4
84	★S9-875-000-000	P WASHER CUT 1.55 × 3.8 × 0.5
85	★S9-999-000-400	P WASHER 2.05 × 0.5
86		
87	★S1-821-310-700	OPERATION LEVER
88	★S1-821-3100600	B FRAME (S)
89	★S1-829-310-300	BUTTON LEVER SHAFT
90	★S9-982-000-000	SCREW (FOR CAMERA) M2 × 7
91		
92		
93		
94		
95		
96		
97	★S1-821-351-600	SWITCH BRACKET
98	★S6-401-017-000	PLAY SWITCH

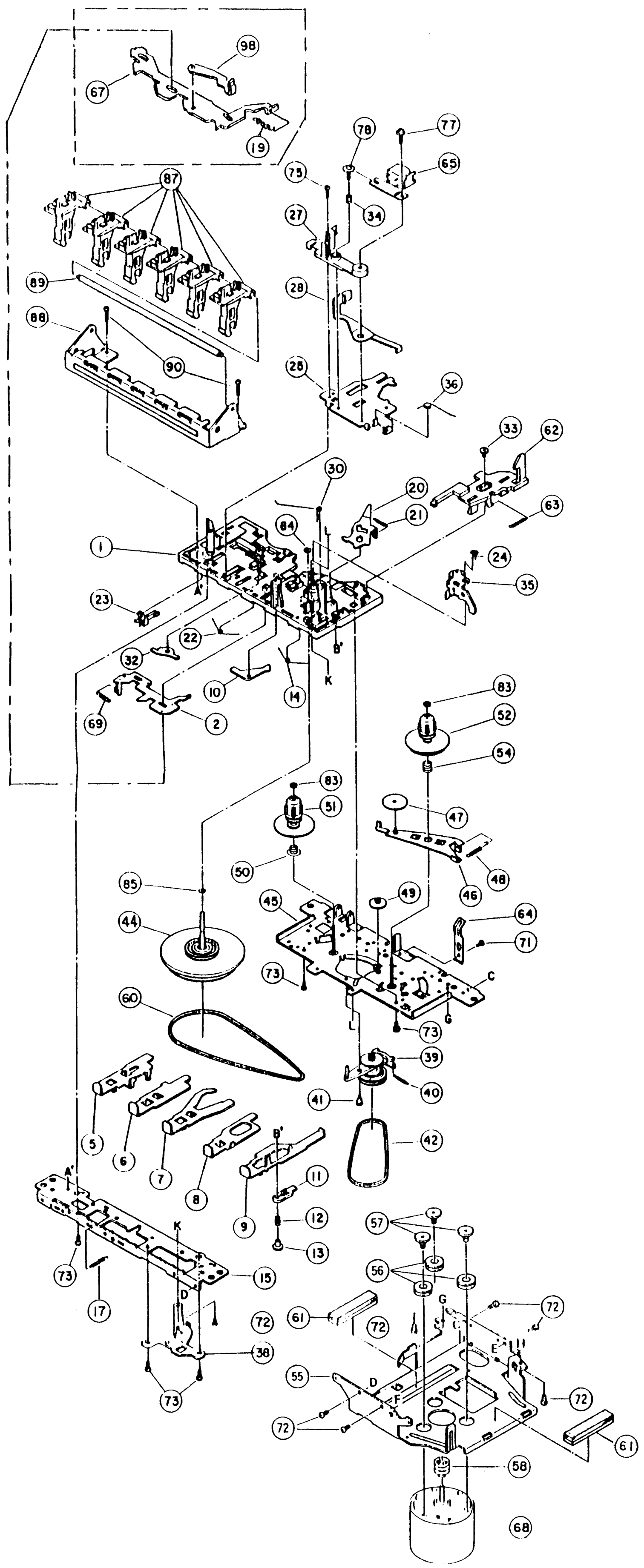
EXPLODED VIEW 3 (Deck 2)



Ref. No	Part No.	Description
1	★S1-821-016-000	MAIN BASE ASS'Y
2	★S1-821-010-500	SWITCH PLATE
3	★S1-821-019-1A0	PUSH BUTTON ACTUATOR
4	★S1-821-012-8A0	REC BUTTON LEVER
5	★S1-821-012-900	PLAY BUTTON LEVER
6	★S1-821-013-000	RWD BUTTON LEVER
7	★S1-821-013-100	FF BUTTON LEVER
8	★S1-821-013-200	STOP BUTTON LEVER
9	★S1-821-015-030	PAUSE BUTTON LEVER ASS'Y
10	★S1-821-016-800	RWD LEVER
11	★S1-821-011-310	PAUSE LEVER
12	★S1-821-011-600	PAUSE LEVER SPRING
13	★S1-821-013-400	PAUSE STOPPERTR
14	★S1-821-012-300	BUTTON LEVER SPRING (C)
15	★S1-821-391-600	SUB PLATE
16	★S1-821-010-700	BUTTON LEVER SPRING (A)
17	★S1-821-015-000	PLAY BUTTON LEVER SPRING (S)
18	★S1-821-011-590	E KICK LEVER
19	★S1-821-012-200	ACTUATOR SPRING
20	★S1-821-016-200	AUTO LEVER
21	★S1-821-012-100	ATUO LEVER SPRING
22	★S1-821-011-300	BUTTON LEVER SPRING (B)
23	★SL-SA1-115-R00	LEAF SWITCH
24	★S6-405-012-300	M.S SCREW
25	★S1-821-031-000	HEAD PANEL
26	S1-829-030-400	HEAD PANEL
27	S1-821-030-200	HEAD BASE
28	★S1-821-033-020	SENSING PLATE ASS'Y
29	★S1-821-030-800	E.H. SPRING
30	★S1-821-031-200	HEAD PANEL SPRING (S)
31	★S1-829-030-200	HEAD BASE
32	★S1-829-011-000	P.R. STOPPER
33	★S1-821-130-500	P.M.E. SCREW
34	★S1-821-030-700	AZIMUTH SPRING
35	★S1-821-043-090	PINCH ROLLER ARM ASS'Y
36	★S1-821-030-700	PINCH ROLLER SPRING
37	★S1-821-391-200	M.S SCREW
38	★S1-821-391-900	METAL GUIDE
39	★S1-821-073-190	RF PULLEY ARM ASS'Y
40	★S1-821-070-190	RF PULLEY ARM ASS'Y
41	★S1-821-072-100	RF ARM COLLER SCREW
42	★S1-821-070-300	RF BELT
43	★S1-821-093-160	FLY WHEEL ASS'Y
44	★S1-821-093-010	FLY WHEEL ASS'Y
45	★S1-821-105-150	REEL BASE ASS'Y
46	★S1-821-105-120	TAKE UP GEAR PLATE ASS'Y
47	★S1-821-103-400	TAKE UP ROLLER GEAR
48	★S1-821-100-800	T.G. PLATE SPRING
49	★S1-821-107-000	FF GEAR
50	★S1-829-101-000	BACK TENSION SPRING
51	★S1-821-103-090	SUPPLY REEL ASS'Y
52	★S1-821-103-130	TAKE UP REEL ASS'Y
53	★S1-800-020-100	RECORD SAFETY LEVER
54	★S1-821-104-600	BACK TENSION SPRING
55	★S1-821-121-230	DECK BRACKET
56	★S1-820-130-600	MOTOR RUBBER
57	★S1-821-120-200	COLLER SCREW
58	★S1-821-121-430	MOTOR PULLEY
59	★S1-821-122-200	MAIN BELT
60	★S1-821-121-250	ANTI VIBRATION FELT MAT
61	★S1-821-121-270	MAIN BELT
62	★S1-821-130-900	EJECT SLIDE LEVER
63	★S1-821-130-200	EJECT SLIDE LEVER SPRING
64	★S1-829-100-100	PACK SPRING
65	★S1-650-269-000-000	P. HEAD
66	★S1-650-228-000-000	R.P. HEAD-
67	★S1-650-281-000-000	R.P. HEAD-
68	★S1-640-255-000-000	MOTOR
69	★S1-821-013-800	SWITCH ACTUATOR SPRING
70	★S9-076-000-000	TAMS SCREW M2 × 3
71	★S9-170-000-000	C TAPPING SCREW M2 × 3
72	★S9-180-000-000	C TAPPING SCREW M2 × 4
73	★S9-679-000-000	P TAPPING BIND SCREW M2 × 5
74	★S9-002-000-000	⊕ SCREW M2 × 4
75	★S9-004-000-000	SCREW M2 × 6
76	★S9-181-000-000	C TAPPING SCREW M2 × 5
77	★S9-820-000-000	⊕⊖ CAP SCREW M2 × 7
78	★S9-922-000-000	AZIMUTH SCREW
89		
80		
81		
82		
83	★S9-888-000-000	P WASHER CUT 1.2 × 3.0 × 0.4
84	★S9-875-000-000	P WASHER CUT 1.55 × 3.8 × 0.5
85	★S9-999-000-400	P WASHER 2.05 × 0.5
86		
87	★S1-821-310-700	OPERATION LEVER
88	★S1-821-3100600	B FRAME (S)
89	★S1-829-310-300	BUTTON LEVER SHAFT
90	★S9-982-000-000	SCREW (FOR CAMERA) M2 × 7
91		
92		
93		
94		
95		
96		
97	★S1-821-351-600	SWITCH BRACKET
98	★S6-401-017-000	PLAY SWITCH

EXPLODED NEW 4 (Deck 1)

Please order the all parts
for this model to Japan



Ref. No	Part No.	Description
1	★S1-821-016-000	MAIN BASE ASS'Y
2	★S1-821-010-500	SWITCH PLATE
3	★S1-821-019-1A0	PUSH BUTTON ACTUATOR
4	★S1-821-012-8A0	REC BUTTON LEVER
5	★S1-821-012-900	PLAY BUTTON LEVER
6	★S1-821-013-000	RWD BUTTON LEVER
7	★S1-821-013-100	FF BUTTON LEVER
8	★S1-821-013-200	STOP BUTTON LEVER
9	★S1-821-015-030	PAUSE BUTTON LEVER ASS'Y
10	★S1-821-016-800	RWD LEVER
11	★S1-821-011-310	PAUSE LEVER
12	★S1-821-011-600	PAUSE LEVER SPRING
13	★S1-821-013-400	PAUSE STOPPERTR
14	★S1-821-012-300	BUTTON LEVER SPRING (C)
15	★S1-821-391-600	SUB PLATE
16	★S1-821-010-700	BUTTON LEVER SPRING (A)
17	★S1-821-015-000	PLAY BUTTON LEVER SPRING (S)
18	★S1-821-011-590	E KICK LEVER
19	★S1-821-012-200	ACTUATOR SPRING
20	★S1-821-016-200	AUTO LEVER
21	★S1-821-012-100	ATUO LEVER SPRING
22	★S1-821-011-300	BUTTON LEVER SPRING (B)
23	★SL-SA1-115-R00	LEAF SWITCH
24	★S6-405-012-300	M.S SCREW
25	★S1-821-031-000	HEAD PANEL
26	S1-829-030-400	HEAD PANEL
27	S1-821-030-200	HEAD BASE
28	★S1-821-033-020	SENSING PLATE ASS'Y
29	★S1-821-030-800	E.H. SPRING
30	★S1-821-031-200	HEAD PANEL SPRING (S)
31	★S1-829-030-200	HEAD BASE
32	★S1-829-011-000	P.R. STOPPER
33	★S1-821-130-500	P.M.E. SCREW
34	★S1-821-030-700	AZIMUTH SPRING
35	★S1-821-043-090	PINCH ROLLER ARM ASS'Y
36	★S1-821-030-700	PINCH ROLLER SPRING
37	★S1-821-391-200	M.S SCREW
38	★S1-821-391-900	METAL GUIDE
39	★S1-821-073-190	RF PULLEY ARM ASS'Y
40	★S1-821-070-190	RF PULLEY ARM ASS'Y
41	★S1-821-072-100	RF ARM COLLER SCREW
42	★S1-821-070-300	RF BELT
43	★S1-821-093-160	FLY WHEEL ASS'Y
44	★S1-821-093-010	FLY WHEEL ASS'Y
45	★S1-821-105-150	REEL BASE ASS'Y
46	★S1-821-105-120	TAKE UP GEAR PLATE ASS'Y
47	★S1-821-103-400	TAKE UP ROLLER GEAR
48	★S1-821-100-800	T.G. PLATE SPRING
49	★S1-821-107-000	FF GEAR
50	★S1-829-101-000	BACK TENSION SPRING
51	★S1-821-103-090	SUPPLY REEL ASS'Y
52	★S1-821-103-130	TAKE UP REEL ASS'Y
53	★S1-800-020-100	RECORD SAFETY LEVER
54	★S1-821-104-600	BACK TENSION SPRING
55	★S1-821-121-230	DECK BRACKET
56	★S1-820-130-600	MOTOR RUBBER
57	★S1-821-120-200	COLLER SCREW
58	★S1-821-121-430	MOTOR PULLEY
59	★S1-821-122-200	MAIN BELT
60	★S1-821-121-250	ANTI VIBRATION FELT MAT
61	★S1-821-121-270	MAIN BELT
62	★S1-821-130-900	EJECT SLIDE LEVER
63	★S1-821-130-200	EJECT SLIDE LEVER SPRING
64	★S1-829-100-100	PACK SPRING
65	★S1-650-269-000-000	P. HEAD
66	★S1-650-228-000-000	R.P. HEAD-
67	★S1-650-281-000-000	R.P. HEAD-
68	★S1-640-255-000-000	MOTOR
69	★S1-821-013-800	SWITCH ACTUATOR SPRING
70	★S9-076-000-000	TAMS SCREW M2 × 3
71	★S9-170-000-000	C TAPPING SCREW M2 × 3
72	★S9-180-000-000	C TAPPING SCREW M2 × 4
73	★S9-679-000-000	P TAPPING BIND SCREW M2 × 5
74	★S9-002-000-000	⊕ SCREW M2 × 4
75	★S9-004-000-000	SCREW M2 × 6
76	★S9-181-000-000	C TAPPING SCREW M2 × 5
77	★S9-820-000-000	⊕○ CAP SCREW M2 × 7
78	★S9-922-000-000	AZIMUTH SCREW
89		
80		
81		
82		
83	★S9-888-000-000	P WASHER CUT 1.2 × 3.0 × 0.4
84	★S9-875-000-000	P WASHER CUT 1.55 × 3.8 × 0.5
85	★S9-999-000-400	P WASHER 2.05 × 0.5
86		
87	★S1-821-310-700	OPERATION LEVER
88	★S1-821-3100600	B FRAME (S)
89	★S1-829-310-300	BUTTON LEVER SHAFT
90	★S9-982-000-000	SCREW (FOR CAMERA) M2 × 7
91		
92		
93		
94		
95		
96		
97	★S1-821-351-600	SWITCH BRACKET
98	★S6-401-017-000	PLAY SWITCH

ELECTRICAL PARTS LIST

Please order the all parts
for this model to Japan

MAIN CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-945-AXO	Main Circuit Board
L101	☆ S1-812-187-000	Coil,
L102	☆ S1-13M-727-000	Coil,
L103	☆ S1-13M-728-000	Coil,
L104	☆ S1-17M-136-000	Coil, Inductor 6.8mH
L105	☆ S1-12M-114-000	Coil,
L201	☆ S1-812-187-000	Coil,
L202	☆ S1-13M-727-000	Coil,
L203	☆ S1-13M-728-000	Coil,
L204	☆ S1-17M-136-000	Coil, Inductor 6.8mH
L205	☆ S1-12M-114-000	Coil,
L302	☆ S1-13D-730-000	Coil,
L303	☆ S1-17M-343-000	Coil, Inductor 1mH
D101	87-020-401-010	Diode, 1SS176
D102	87-020-401-010	Diode, 1SS176
D201	87-020-401-010	Diode, 1SS176
D202	87-020-401-010	Diode, 1SS176
D301	87-020-401-010	Diode, 1SS176
D302	87-020-401-010	Diode, 1SS176
D303	87-020-401-010	Diode, 1SS176
D308	87-020-401-010	Diode, 1SS176
D309	87-020-401-010	Diode, 1SS176
D310	87-020-401-010	Diode, 1SS176
D311	87-020-401-010	Diode, 1SS176
D312	87-020-401-010	Diode, 1SS176
D313	87-020-401-010	Diode, 1SS176
D314	87-020-401-010	Diode, 1SS176
D315	87-020-401-010	Diode, 1SS176
D316	87-020-401-010	Diode, 1SS176
D317	87-020-401-010	Diode, 1SS176
D318	87-020-401-010	Diode, 1SS176
D319	87-020-401-010	Diode, 1SS176
D320	87-020-401-010	Diode, 1SS176
D321	87-020-401-010	Diode, 1SS176
D322	87-020-401-010	Diode, 1SS176
D323	87-020-401-010	Diode, 1SS176
D324	87-020-401-010	Diode, 1SS176
D325	87-020-401-010	Diode, 1SS176
D329	87-020-401-010	Diode, UZ-5.1B
D330	87-020-401-010	Diode, UZ10B
D331	87-020-401-010	Diode, 1SS176
D333	SU-Z82-BOO-000	Diode, UZ-8.2B
D334	87-020-401-010	Diode, 1SS176
D335	87-020-401-010	Diode, 1SS176
D336	87-020-401-010	Diode, 1SS176
D338	SU-Z62-BOO-000	Diode, UZ6.2B
D340	87-020-401-010	Diode, 1SS176 (E, K, Z only)
D341	87-020-401-010	Diode, 1SS176 (E, K, Z only)
D342	SU-Z33-BOO-000	D10DE, UZ-3.3B (E, K, Z only)
IC302	SB-A33-120-000	IC, BA3312
IC303	ST-A77-84P-000	IC, TA7784P
IC304	SC-XA1-102-000	IC, CXA1102
IC305	SL-A45-000-000	IC, LA4500
J1	S1-780-041-000	Jack, Pin (AUX In)
J2	S1-780-041-000	Jack, Pin (AUX In)
J3	S1-780-041-000	Jack, Pin (Tape Out)
J4	S1-780-041-000	Jack, Pin (Tape Out)
J5	S1-630-242-000	Jack 3.5 (Ext. Mic)
SFR101	☆ S1-38N-781-000	SFR 10k
SFR102	☆ S1-38N-781-000	SFR 10k
SFR103	☆ S1-38N-782-000	SFR 20k
SFR104	☆ S1-38N-785-000	SFR 50k
SFR201	☆ S1-38N-781-000	SFR 10k
SFR202	☆ S1-38N-781-000	SFR 10k
SFR203	☆ S1-38N-782-000	SFR 20k
SFR204	☆ S1-38N-785-000	SFR 50k
S2-5	S5-622-067-000	Push SW
S6-9	S5-622-051-000	Push SW
S11	S1-621-651-000	Slide SW Record/Play
S12	S1-621-542-000	Slide SW Beat Cut
Q101	89-318-154-010	Transistor, 2SC1815
Q102	89-318-154-010	Transistor, 2SC1815
Q103	89-318-154-010	Transistor, 2SC1815
Q104	89-318-154-010	Transistor, 2SC1815
Q105	89-307-325-010	Transistor, 2SC732
Q201	89-318-154-010	Transistor, 2SC1815
Q203	89-318-154-010	Transistor, 2SC1815
Q203	89-318-154-010	Transistor, 2SC1815
Q204	89-318-154-010	Transistor, 2SC1815
Q205	89-307-325-010	Transistor, 2SC732
Q206	89-318-154-010	Transistor, 2SC1815
Q301	89-318-154-010	Transistor, 2SC1815
Q302	89-307-325-010	Transistor, 2SC732
Q303	89-318-154-010	Transistor, 2SC1815
Q304	89-318-154-010	Transistor, 2SC1815
Q305	89-318-154-010	Transistor, 2SC1815
Q306	89-318-154-010	Transistor, 2SC1815
Q307	89-316-274-010	Transistor, 2SC1627
Q308	89-313-830-010	Transistor, 2SC1383
Q309	89-318-154-010	Transistor, 2SC1815
Q310	89-318-154-010	Transistor, 2SC1815
Q311	89-318-154-010	Transistor, 2SC1815
Q312	89-318-154-010	Transistor, 2SC1815
Q313	89-318-415-010	Transistor, 2SC1846
Q314	S2-SD8-820-000	Transistor, 2SD882
Q320	89-318-154-010	Transistor, 2SC1815
Q321	89-318-154-010	Transistor, 2SC1815
Q322	89-318-154-010	Transistor, 2SC1815
	S2-3YF-266-000	Heat Sink

HEADPHONE CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-945-BXO	Headphone Circuit Baord
J6	S1-630-351-000	Jack, 3.5 Headphone

LED METER CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-945-CXO	Led Meter Circuit Board
D304	SL-N25-ORP-HOO	Diode, LN250RPH
D305	SL-N25-ORP-HOO	Diode, LN250RPH
D306	SL-N25-ORP-HOO	Diode, LN250RPH
D307	SL-N25-ORP-HOO	Diode, LN250RPH
D326	SL-N25-ORP-HOO	Diode, LN250RPH
D327	SL-N25-ORP-HOO	Diode, LN250RPH
D328	SL-N25-ORP-HOO	Diode, LN250RPH
IC301	SB-A61-240-000	IC, BA6124
R311	S1-344-470-000	RES, Metalized 47 1W
	S1-613-943-AXO	Tuner Circuit Board (H Model Only)
	S1-613-944-AXO	Tuner Circuit Board (U Model Only)
L1	☆ S1-12M-167-000	Coil, FM ANT
L2	☆ S1-12M-127-000	Coil, FM RF
L3	☆ S1-14M-069-000	Coil, FM OSC
L4	☆ S1-14M-080-000	Coil, SW2 ANT
L4	☆ S1-14M-094-000	Coil, SW ANT (E, K, Z Model Only)
L5/6	☆ S1-11B-788-000	Bar Antenna MW/SW1 (H Model Only)
L5/6	☆ S1-11B-787-000	Bar Antenna MW/LW (E, K, Z Model Only)
L6	☆ S1-11B-775-000	Bar Antenna MW (U Model Only)
L7	☆ S1-13M-679-000	Coil, SW2 OSC (H Model Only)
L7	☆ S1-13M-681-000	Coil, SW OSC (E, K, Z Model Only)
L8	☆ S1-13M-678-000	Coil, SW1 OSC (H Model Only)
L8	☆ S1-13M-677-000	Coil, MW OSC (E, K, Z Model Only)
L9	☆ S1-13M-676-000	Coil, MW OSC (U Model Only)
L9	☆ S1-13M-680-000	Coil, LW OSC (E, K, Z Model Only)
T1	☆ S1-1LM-238-000	Coil, FM IFT
T2	☆ S1-1JM-243-000	Coil, FM IFT
T3	☆ S1 1AM-299-000	Coil, AM IFT
	S1-812-186-000	Ceramic Filter
CF1	S1-810-102-000	Ceramic Filter
L10	S2-172-109-000	Coil, Micro Inductor (H Model Only)
DPWB	S1-810-776-000	Filter Block
D1	87-020-401-010	Diode, 1SS176
D2	87-020-401-010	Diode, 1SS176
D4	87-020-401-010	Diode, 1SS176
IC1	SL-A11-86N-000	IC, LA1186N
IC2	SB-A42-36L-000	IC, BA4236L
IC3	SL-A33-610-000	IC, LA3361
R23	☆ S2-38N-026-000	Potentiometer, 6.8k
S1	S1-620-379-000	Rotary SW (H Model Only)
	S1-620-380-000	Rotary SW (U Model Only)
VC1-4	☆ S1-290-201-000	Poly Variable Capacitor (H Model TC1-40NLY)
	☆ S1-290-210-000	Poly Variable Capacitor (U Model Only)
TC5	☆ S1-280-110-000	Trimmer 8P (H Model Only)
TC6	☆ S1-280-110-000	Trimmer 8P (H Model Only)
TC6	☆ S1-280-109-000	Trimmer 16P (E, K, Z Model Only)
TC7	☆ S1-280-110-000	Trimmer 8P (H Model Only)
TC7	☆ S1-280-109-000	Trimmer 16P (E, K, Z Model Only)
TC8	☆ S1-280-110-000	Trimmer 8P (H Model Only)

FINE TUNING CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-943-BXO	Fine Tuning Circuit Board (H Model Only)
VC5	☆ S1-291-174-000	Variable Capacitor 1.8P (H Model Only)

STEREO LED CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-943-CXO	STEREO LED CIRCUIT BOARD (H Model Only)
D5	SL-250-RPH-000	LED, Stereo Indicator

GRAPHIC EQUALIZER CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-946-X00	Graphic Equalizer Circuit Board
IC101	87-020-291-010	IC, BA3812L
IC201	87-020-291-010	IC, BA3812L
VR1	S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR2	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR3	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR4	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR5	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR6	☆ S5-390-700-000	Potentiometer, 50k Balance
VR7	☆ S5-390-699-000	Potentiometer, 50k Main Volume

POWER SUPPLY CIRCUIT BOARD SECTION

Ref.No	Part No.	Description
	S1-613-948-AXO	Power Supply Circuit Board
D401	SR-L20-200-000	Diode, R202F
D402	SR-L20-200-000	Diode, R202F
D403	SR-L20-200-000	Diode, R202F
D404	SR-L20-200-000	Diode, R202F
J9	S1-71C-059-000	AC Inlet
S16	S3-A25-OVO-000	Slide SW Voltage Selector 3A/250V
	S1-790-484-000	Fuse, T-2A/250V
	S1-740-246-000	Holder, Fuse

SPEAKER JACK CIRCUIT BOARD LEFT SECTION

Ref.No	Part No.	Description
	S1-613-948-BXO	Speaker Jack PCB Left Ass'y
J7	S1-780-041-000	Jack, Pin

SPEAKER JACK CIRCUIT BOARD RIGHT SECTION

Ref.No	Part No.	Description
	S1-613-948-CXO	Speaker Jack Right Ass'y
J8	S1-780-041-000	Jack, Pin
	S1-613-812X-000	CD Main Circuit Board
D501	S1-SS1-760-000	Diode, 1SS176
D502	S1-SS1-760-000	Diode, 1SS176
D506	SM-TZ5-6CO-000	Diode, SMT5.6C
D507	S1-SS1-760-000	Diode, 1SS176
D508	S1-501-187-000	Diode, 1401187
D510	S1-SS1-760-000	Diode, 1SS176 (E, K, Z Model Only)
D511	S1-SS1-760-000	Diode, 1SS176 (E, K, Z Model Only)
D512	S1-SS1-760-000	Diode, 1SS176 (E, K, Z Model Only)
IC501	ST-A81-01N-000	IC, TA8101N
IC502	ST-C92-01A-F00	IC, TC9201AF
IC503	ST-C92-000-AFO	IC, TC9200AF
IC504	SN-JM-902-NOO	IC, NJM2902N
IC505	ST-A81-02P-000	IC, TA8102P
IC506	ST-A81-02P-000	IC, TA8102P
IC507	ST-A81-02P-000	IC, TA8102P
IC508	ST-A81-02P-000	IC, TA8102P
IC509	SC-XK5-816-M15	IC, CXK5816M-15L
IC510	SP-ST5-20C-000	IC, PST520C
IC511	ST-D67-10N-000	IC, TD6710N
IC512	SN-JM2-904-D00	IC, APC NJM2904D
IC513	SN-JM2-904-D00	IC, APC NJM2904D
VR501	☆ S6-38A-104-000	Potentiometer, 100k ohm

Ref.No	Part No.	Description
	HEADPHONE CIRCUIT BOARD SECTION	
	S1-613-945-BXO	Headphone Circuit Baord
J6	S1-630-351-000	Jack, 3.5 Headphone
	LED METER CIRCUIT BOARD SECTION	
	S1-613-945-CXO	Led Meter Circuit Board
D304	SL-N25-ORP-HOO	Diode, LN250RPH
D305	SL-N25-ORP-HOO	Diode, LN250RPH
D306	SL-N25-ORP-HOO	Diode, LN250RPH
D307	SL-N25-ORP-HOO	Diode, LN250RPH
D326	SL-N25-ORP-HOO	Diode, LN250RPH
D327	SL-N25-ORP-HOO	Diode, LN250RPH
D328	SL-N25-ORP-HOO	Diode, LN250RPH
IC301	SB-A61-240-000	IC, BA6124
R311	S1-344-470-000	RES, Metalized 47 1W
	S1-613-943-AXO	Tuner Circuit Board (H Model Only)
	S1-613-944-AXO	Tuner Circuit Board (U Model Only)
L1	☆ S1-12M-167-000	Coil, FM ANT
L2	☆ S1-12M-127-000	Coil, FM RF
L3	☆ S1-14M-069-000	Coil, FM OSC
L4	☆ S1-14M-080-000	Coil, SW2 ANT
L4	☆ S1-14M-094-000	Coil, SW ANT (E, K, Z Model Only)
L5/6	☆ S1-11B-788-000	Bar Antenna MW/SW1 (H Model Only)
L5/6	☆ S1-11B-787-000	Bar Antenna MW/LW (E, K, Z Model Only)
L6	☆ S1-11B-775-000	Bar Antenna MW (U Model Only)
L7	☆ S1-13M-679-000	Coil, SW2 OSC (H Model Only)
L7	☆ S1-13M-681-000	Coil, SW OSC (E, K, Z Model Only)
L8	☆ S1-13M-678-000	Coil, SW1 OSC (H Model Only)
L8	☆ S1-13M-677-000	Coil, MW OSC (E, K, Z Model Only)
L9	☆ S1-13M-676-000	Coil, MW OSC (U Model Only)
L9	☆ S1-13M-680-000	Coil, LW OSC (E, K, Z Model Only)
T1	☆ S1-1LM-238-000	Coil, FM IFT
T2	☆ S1-1JM-243-000	Coil, FM IFT
T3	☆ S1 1AM-299-000	Coil, AM IFT
	S1-812-186-000	Ceramic Filter
CF1	S1-810-102-000	Ceramic Filter
L10	S2-172-109-000	Coil, Micro Inductor (H Model Only)
DPWB	S1-810-776-000	Filter Block
D1	87-020-401-010	Diode, 1SS176
D2	87-020-401-010	Diode, 1SS176
D4	87-020-401-010	Diode, 1SS176
IC1	SL-A11-86N-000	IC, LA1186N
IC2	SB-A42-36L-000	IC, BA4236L
IC3	SL-A33-610-000	IC, LA3361
R23	☆ S2-38N-026-000	Potentiometer, 6.8k
S1	S1-620-379-000	Rotary SW (H Model Only)
	S1-620-380-000	Rotary SW (U Model Only)
VC1-4	☆ S1-290-201-000	Poly Variable Capacitor (H Model TC1-40NLY)
	☆ S1-290-210-000	Poly Variable Capacitor (U Model Only)
TC5	☆ S1-280-110-000	Trimmer 8P (H Model Only)
TC6	☆ S1-280-110-000	Trimmer 8P (H Model Only)
TC6	☆ S1-280-109-000	Trimmer 16P (E, K, Z Model Only)
TC7	☆ S1-280-110-000	Trimmer 8P (H Model Only)
TC7	☆ S1-280-109-000	Trimmer 16P (E, K, Z Model Only)
TC8	☆ S1-280-110-000	Trimmer 8P (H Model Only)
	FINE TUNING CIRCUIT BOARD SECTION	
	S1-613-943-BXO	Fine Tuning Circuit Board (H Model Only)
VC5	☆ S1-291-174-000	Variable Capacitor 1.8P (H Model Only)
	STEREO LED CIRCUIT BOARD SECTION	
	S1-613-943-CXO	STEREO LED CIRCUIT BOARD (H Model Only)
D5	SL-250-RPH-000	LED, Stereo Indicator
	GRAPHIC EQUALIZER CIRCUIT BOARD SECTION	
	S1-613-946-X00	Graphic Equalizer Circuit Board
IC101	87-020-291-010	IC, BA3812L
IC201	87-020-291-010	IC, BA3812L
VR1	S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR2	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR3	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR4	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR5	☆ S5-390-701-000	Potentiometer, 100k Graphic Equalizer
VR6	☆ S5-390-700-000	Potentiometer, 50k Balance
VR7	☆ S5-390-699-000	Potentiometer, 50k Main Volume
	POWER SUPPLY CIRCUIT BOARD SECTION	
	S1-613-948-AXO	Power Supply Circuit Board
D401	SR-L20-200-000	Diode, R202F
D402	SR-L20-200-000	Diode, R202F
D403	SR-L20-200-000	Diode, R202F
D404	SR-L20-200-000	Diode, R202F
J9	S1-71C-059-000	AC Inlet
S16	S3-A25-OVO-000	Slide SW Voltage Selector 3A/250V
	S1-790-484-000	Fuse, T-2A/250V
	S1-740-246-000	Holder, Fuse
	SPEAKER JACK CIRCUIT BOARD LEFT SECTION	
	S1-613-948-BXO	Speaker Jack PCB Left Ass'y
J7	S1-780-041-000	Jack, Pin
	SPEAKER JACK CIRCUIT BOARD RIGHT SECTION	
	S1-613-948-CXO	Speaker Jack Right Ass'y
J8	S1-780-041-000	Jack, Pin
	S1-613-812X-000	CD Main Circuit Board
D501	S1-SS1-760-000	Diode, 1SS176
D502	S1-SS1-760-000	Diode, 1SS176
D506	SM-TZ5-6CO-000	Diode, SMT5.6C
D507	S1-SS1-760-000	Diode, 1SS176
D508	S1-501-187-000	Diode, 1401187
D510	S1-SS1-760-000	Diode, 1SS176 (E, K, Z Model Only)
D511	S1-SS1-760-000	Diode, 1SS176 (E, K, Z Model Only)
D512	S1-SS1-760-000	Diode, 1SS176 (E, K, Z Model Only)
IC501	ST-A81-01N-000	IC, TA8101N
IC502	ST-C92-01A-F00	IC, TC9201AF
IC503	ST-C92-000-AFO	IC, TC9200AF
IC504	SN-JM-902-NOO	IC, NJM2902N
IC505	ST-A81-02P-000	IC, TA8102P
IC506	ST-A81-02P-000	IC, TA8102P
IC507	ST-A81-02P-000	IC, TA8102P
IC508	ST-A81-02P-000	IC, TA8102P
IC509	SC-XK5-816-M15	IC, CXK5816M-15L
IC510	SP-ST5-20C-000	IC, PST520C
IC511	ST-D67-10N-000	IC, TD6710N
IC512	SN-JM2-904-D00	IC, APC NJM2904D
IC513	SN-JM2-904-D00	IC, APC NJM2904D
VR501	☆ S6-38A-104-000	Potentiometer, 100k ohm

Ref.No	Part No.	Description
VR503	☆ S6-38A-223-000	Potentiometer, 20k ohm
VR504	☆ S6-38A-104-000	Potentiometer, 100k ohm
VR505	☆ S6-38A-102-000	Potentiometer, 1k ohm
Q501	☆ S2-SD8-820-000	Transistor, 2SD882
Q502	89-313-830-010	Transistor, 2SC1383R
Q503	89-321-204-010	Transistor, 2SC2120
Q504	89-321-204-010	Transistor, 2SC2120
Q505	89-106-834-010	Transistor, 2SA683R
Q507	89-318-155-010	Transistor, 2SC1815 (E, K, Z Model Only)
Q508	89-110-153-010	Transistor, 2SA1015
Q509	89-318-155-010	Transistor, 2SC1815
XT501	S1-812-200-000	Cera Lock (Crystal) 6.9344MHz
L501	S2-152-109-000	Coil, 1μH (E, K, Z Model Only)
	DISPLAY CIRCUIT BOARD SECTION	
	S1-613-811-X00	DISPLAY PCB
D601	87-020-401-010	Diode, 1SS176
D602	87-020-401-010	Diode, 1SS176
IC601	S1-4DW-251-000	IC, 14DW251
S601	S5-622-057-000	Switch, PUSH
S602	S5-622-057-000	Switch, PUSH
S603	S5-622-057-000	Switch, PUSH
S604	S5-622-057-000	Switch, PUSH
S605	S5-622-057-000	Switch, PUSH
DP601	S1-812-011-000	Display, LCD
	S1-613-847-AXO	PCB Ass'y Switch
	S1-613-847-BXO	PCB Ass'y ACT
	S1-613-847-CXO	PCB Ass'y Motor
	S1-613-847-DXO	PCB Ass'y LD/PD
	S1-613-967-X00	CPB Ass'y Junction
D451	S1-N41-48T-R00	Diode, 1N4148-TR
SFR451	S6-38A-102-000	POTENTIOMETER, 1k OHM
SFR452	S6-38A-471-000	Potentiometer, 500 OHM
Q451	89-321-204-010	Transistor, 2SC2120
Q452	89-110-153-010	Transistor, 2SA1015
S501	S5-622-050-000	Switch, Push Limit
S502	S5-622-050-000	Switch, Push Limit
	MISCELLANEOUS	
	S1-670-225-000	TAPE COUNTER
PU501	S1-812-201-0A0	Pick up
M501	S1-640-260-000	Motor, Feed
T601	S1-15M-528-000	Power Transformer (H MODEL ONLY)
	S1-15M-527-000	Power Transformer (U Model Only)
	S1-15M-529-000	Power Transformer (E, Z Model Only)
	S1-14M-530-000	Power Transformer (K Model Only)
SP101	☆ S1-520-538-000	Speaker, Woofer
SP102	☆ S1-520-512-000	Speaker, Tweeter
SP201	☆ S1-520-538-000	Speaker, Woofer
SP202	☆ S1-520-512-000	Speaker, Tweeter
	S1-750-866-000	Cord Set, Speaker
	S1-750-920-000	Cord Set, AC (H Model Only)
	S1-750-923-000	Cord Set, AC (U Model Only)
	S1-750-924-000	Cord Set, AC (E, Z Model Only)
	S1-750-928-000	Cord Set, AC (K Model Only)
	S1-740-224-000	Plug, Siemens (H Model Only)
	S3-1GF-542-000	Instruction Book (U.H. Model Only)
	S3-1GF-543-000	Instruction Book (EKZ Model Only)

④Bias Frequency Adjustment

Settings: • Test tape:
• Test points: TP11 G and R (R ch)
TP11 G and L (L ch)
Adjustment location:
Deck 1: L302 (OSC coil)

Method: Set Deck 2 to the REC mode and adjust L302 so that the Frequency counter shows 106.00+− 0.2kHz.

⑤Bias Current Adjustment

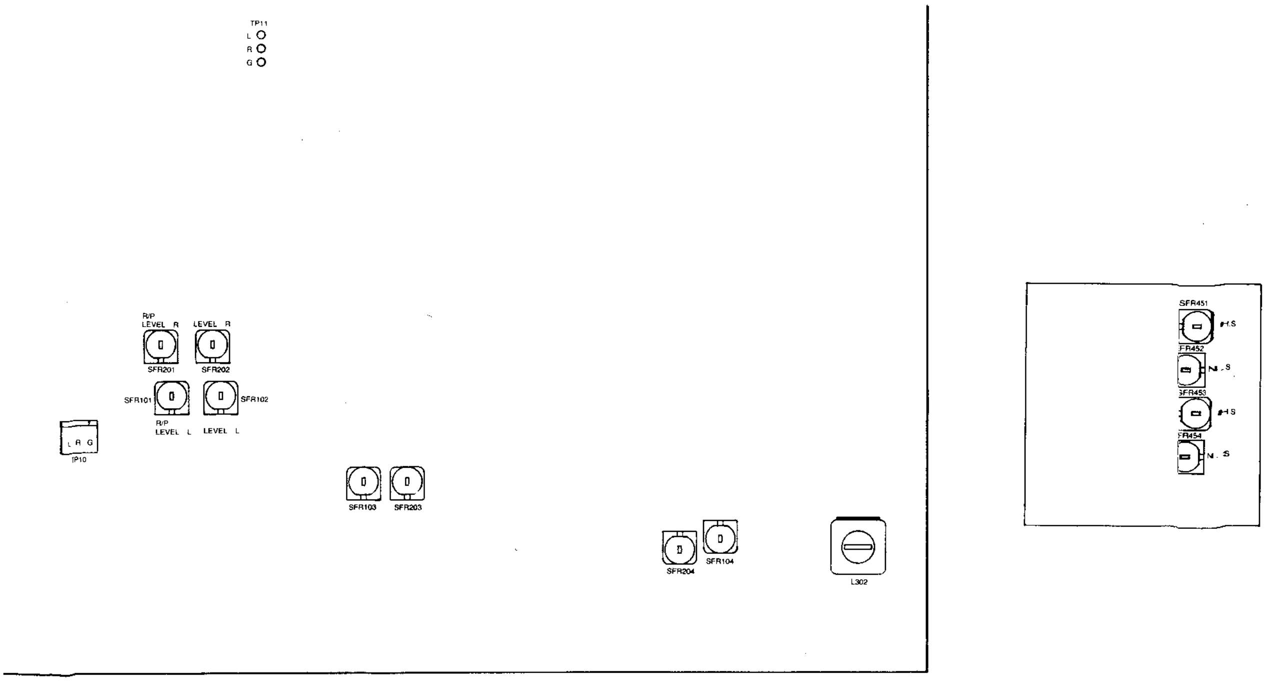
Settings: • Test tape:
• Test points: TP11 G (R ch)
TP10 G (L ch)
Adjustment location:
Deck 1: SFR104 (L ch)
Deck 2: SFR204 (R ch)

Method: Set Deck 2 to the REC mode and adjust SFR so that the outputs in channels L and R are 3.8mV. (Normal Position) in the Metal position, outputs in channels L and R should 7.4mV. (Confirmation only)

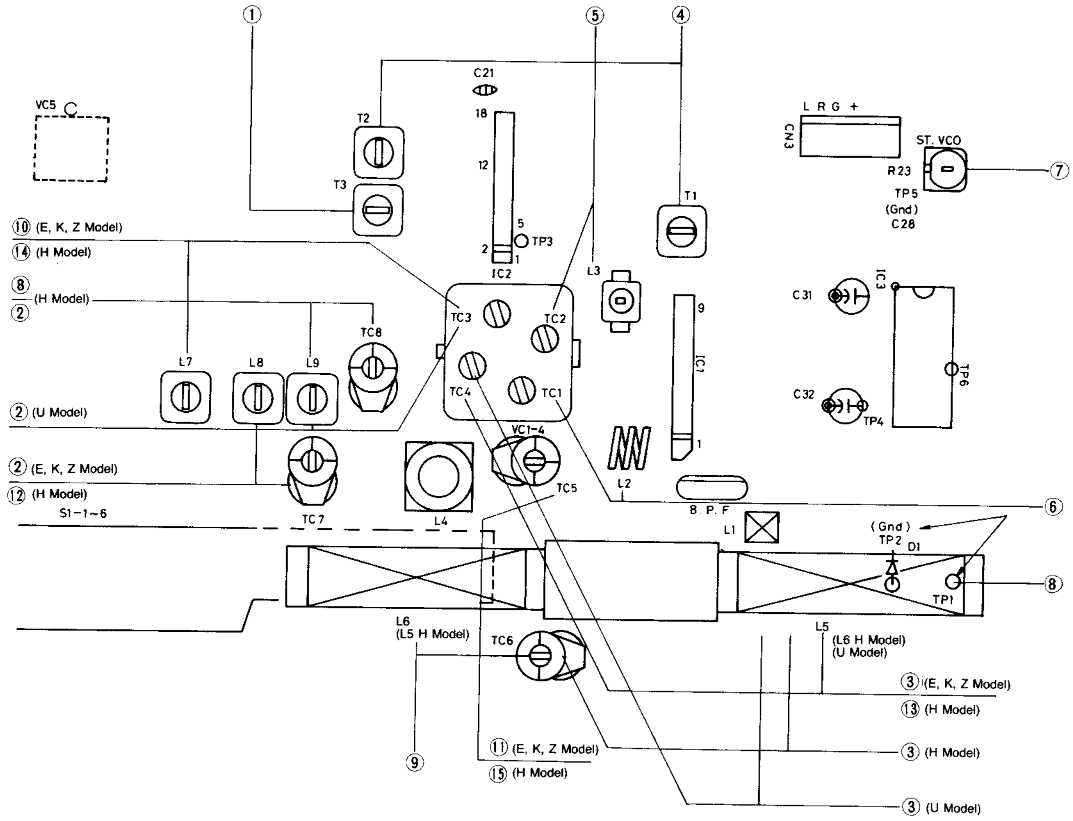
⑥Record Level Adjustment

Settings: • Test tape: TTA-119K
• Test points: TP10 G and R (R ch)
TP10 G and L (L ch)
Adjustment location:
Deck 1: SFR103 (L ch)
SFR203 (R ch)

Method: Set Function switch to the AUX and set Deck 2 to the REC mode. Adjust input level to 80.5mV (Dolby level −10dB). Record a while Set Function switch to the TAPE and set Deck 2 to PLAY mode. Adjust SFR so that the outputs L ch and R ch are 80.5mV.


TP11
L
R
G
R/P LEVEL R
LEVEL R
SFR201
SFR202
SFR101
SFR102
R/P LEVEL L
LEVEL L
L R G
TP10
SFR103
SFR203
SFR204
SFR104
L302
SFR451
H S
FR452
N S
FR453
H S
FR454
N S

ALIGNMENT OF TUNER SECTION


①
⑤
④
C21
VC5
T2
18
12
T3
5
TP3
2
1
IC2
T1
L R G +
CN3
ST. VCO
R23
TP5
(Gnd)
C28
⑦
⑩ (E, K, Z Model)
⑭ (H Model)
⑧
(H Model)
②
TC8
TC3
TC2
L3
9
IC1
IC3
C31
TP6
L7
L8
L9
TC4
TC1
C32
TP4
② (U Model)
VC1-4
1
② (E, K, Z Model)
⑫ (H Model)
S1-1~6
TC7
L4
TC5
L2
B.P.F
⑥
L1
(Gnd)
TP2
D1
⑧
TP1
L6
(L5 H Model)
TC6
L5
(L6 H Model)
(U Model)
③ (E, K, Z Model)
⑬ (H Model)
⑪ (E, K, Z Model)
⑮ (H Model)
③ (H Model)
⑨
③ (U Model)

① AM IF ADJ.
T3 .... 400kHz (EKZ. HU)

② AM FREQUENCY RANGE ADJ.
L8 .... 515kHz (EKZ)
TC7 ...... 1650kHz (EKZ)
L9 .... 515kHz (H)
TC8 ...... 1650kHz (H)
L9 .... 515kHz (U)
TC3 ...... 1650kHz (U)

③ AM TRACKING ADJ.
L5 .... 600kHz (EKZ)
TC4 ...... 1400kHz (EKZ)

④ FM IF ADJ.
T1, 2 .... 10.7MHz (EKZ HU)

⑤ FM FREQUENCY RANGE ADJ.
L3 .... 87.4MHz (EKZ)
TC2 ...... 108.5MHz (EKZ)
L3 .... 87 (U)
TC2 ...... 109 (U)
L3 .... 87 (H)
TC2 ...... 109 (H)

⑥ FM TRACKING
L2 .... 90kHz (EKZ HU)
TC1 ...... 106MHz (EKZ HU)

⑦ FM VCO FREQUENCY ADJ.
R23 ...... 19kHz (EKZ MU)

⑧ LW FREQUENCY RANGE ADJ.
L9 .... 145kHz (EKZ)
TC8 ...... 295kHz (EKZ)

⑨ LW TRACKING
L6 .... 160KHz (EKZ)
TC6 ...... 250kHz (EKZ)

⑩ SW FREQUENCY RANGE AJD.
L7 .... 5.8MHz (EKZ)
TC3 ...... 18.5MHz (EKZ)

⑪ SW TRACKING
L4 .... 7MHz (EKZ)
TC3 ...... 18.5MHz (EKZ)

⑫ SW1 FREQUENCY RANGE
L8 .... 2.1MHz (H)
TC7 ...... 7.3MHz (H)

⑬ SW1 TRACKING
L5 .... 2.5MHz (H)
TC4 ...... 6.5MHz (H)

⑭ SW2 FREQUENCY RANGE
L7 .... 6.8MHz (H)
TC3 ...... 22.5MHz (H)

⑮ SW2 TRACKING
L4 .... 8MHz (H)
TC5 ...... 20MHz (H)